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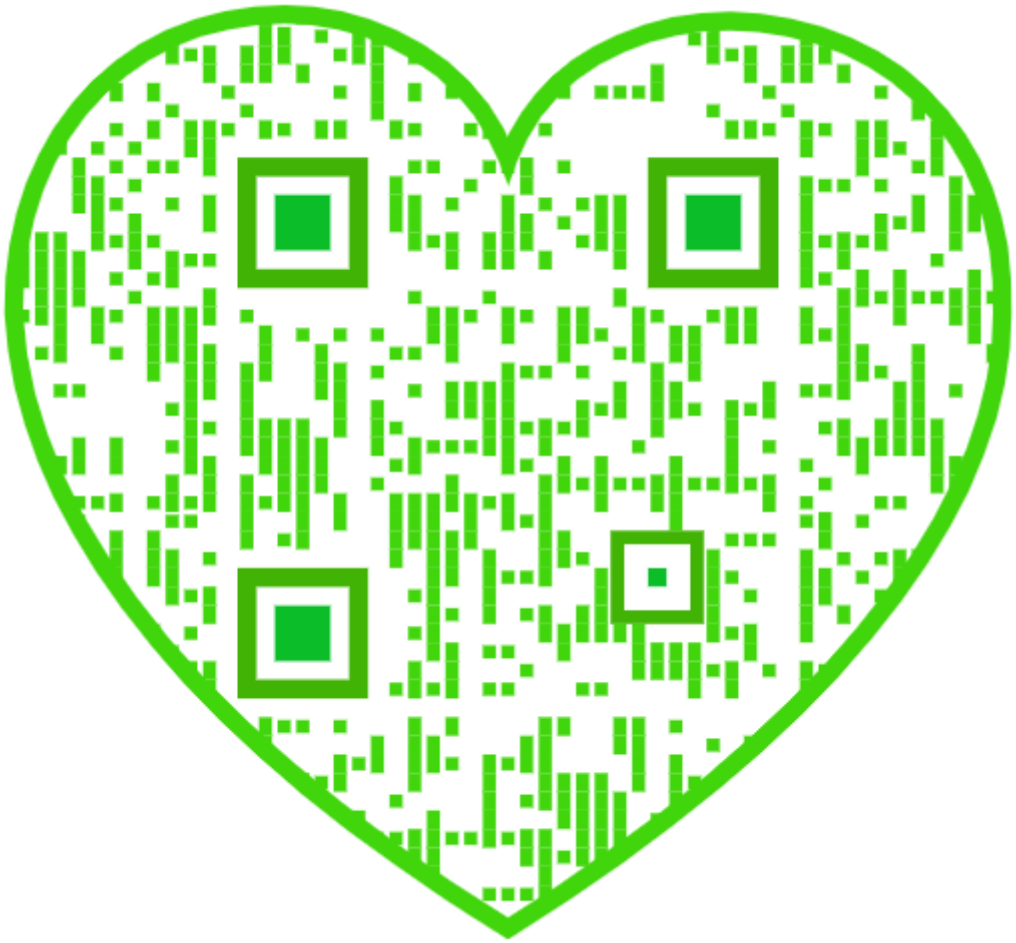

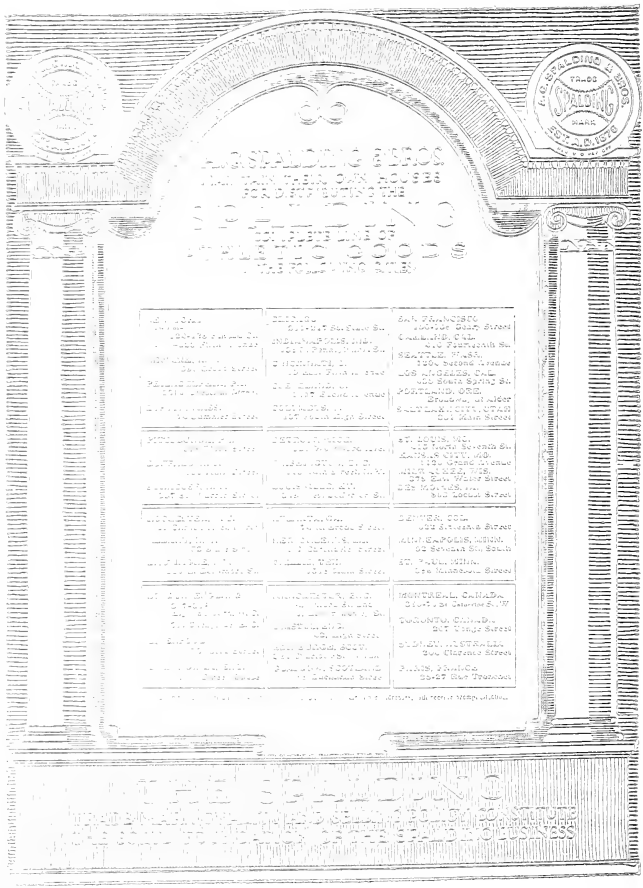

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No. 56B

TUMBLING FOR AMATEURS

BY

JAMES T. GWATHMEY, M.D.

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TUMBLING FOR AMATEURS

Teachers, especially in public gymnasia, where the attendance is voluntary, will welcome anything that will make the exercises more attractive and do away, as far as possible, with the idea of "work."

Tumbling should form a part of every system taught in our public gymnasia, and to those who have not heretofore studied the subject we submit the following propositions:

1. Tumbling will develop, harmoniously, the whole body without the aid of any apparatus whatever, or any other set of exercises. A careful study of the physiques of professional tumblers will verify this statement.

2. The exercises can be easily graded, so that there will be absolutely no danger in going from primary to advanced tumbling. In individual tumbling, the body being always close to the ground, the chances of a break or a sprain are reduced to a minimum; and in comparison with other forms of exercise, such as boxing, wrestling, or apparatus work, the percentage of accidents will be found to compare most favorably.

3. Friends can enter into the keenest competition, urging each other to the highest possible development and perfection, and never experience the inconveniences of black eyes and bruises—the usual resultants of combative exercises.

4. At least 50 per cent. of those entering the gymnasium

can participate in some form of tumbling, either individual or combination; the greatest progress for adults being attained in the latter, where two or more men exercise together.

5. No expensive appliances or apparatus is necessary in introducing or teaching tumbling, the mats absolutely essential in any gymnasium being all-sufficient for ordinary class work. But if tumbling is to be made a feature, then a large mat, 15 feet long by 6 feet wide and 2 feet high and stuffed with straw or hay, will be found a very attractive addition, as it can be used to great advantage with any gymnastic apparatus.

6. For boys, tumbling is the most natural exercise in the world, as they are easily interested and held in this form of exercise when a dumb-bell drill would run them away. Besides the development, they get co-ordination and control to a remarkable extent, which will be invaluable to them in any exercise that they may engage in later on.

7. A tumbler easily adapts himself to all gymnastic apparatus, and will usually be found to be more graceful than an exclusive apparatus worker. If teachers who have never used tumbling would introduce it, it would do away, in a great measure, with that stiffness which is so distasteful to many; and, if as systematically taught as their apparatus work, would change the product of their gymnasiums from the top-heavy type to a symmetrical whole.

8. It is the one universal exercise used by the whole human family from the earliest times to the dawn of the twentieth century, and will continue in use as long as the world lasts. The millions of babies tumbling in the world to-day, learning

their first physical exercise—to walk—reminds us that we have all taken a few lessons, at least, in this most useful art.

9. Tumbling is of more importance than all other exercises, as, *nolens volens*, we all take a tumble occasionally; and if we know how to tumble—so as to land on our feet or keep from falling—it will give us a confidence that we would not otherwise have. There seems to be a very prevalent idea that if a man has never learned how to tumble before he is twenty-one he had just as well not start. On the contrary, if a person has never taken gymnastic exercises, he can make greater advancement in tumbling than in almost any other form of exercise, if his physique permits of tumbling at all. After acquiring a few of the exercises, tumbling can be practiced with pleasure and satisfaction on any lawn, sand-bar, or sawdust pile, and in this way will prove of more practical utility than almost any form of gymnastics.

A word of caution might not be out of place: In teaching adults (where a large mat, such as already described, is not used) the small mats cannot be piled too high to prevent jars and shocking surprises. If pupils suffer from dizziness, excuse them from these exercises. In combination tumbling the belt, or lunger, must always be put on for a first trial, however simple the exercise may appear.

In the following pages I have depended almost entirely upon the illustrations, and have intentionally made the text as short and concise as possible—following the plan of Messrs. Hitchcock and Nelligan's most excellent work, "Wrestling." I am also indebted to Dr. William Anderson, of Yale University, for many valuable suggestions.

JAMES T. GWATHMEY.

PRIMARY TUMBLING

1. **The Forward Roll Over.** Double up close, and finish standing erect on toes. Figs. 1, 2, 3.

2. **The Forward Roll Over,** grasping toes throughout roll. Fig. 4.

3. **The Forward Roll Over,** grasping toes, legs crossed Fig. 5.

4. **The Forward Roll Over,** arms between legs, hands on outside of ankles. Fig. 6.

5. **The Forward Roll Over,** arms between legs, hands clasped. Fig. 7.

6. **The Forward Roll Over,** arms at side horizontal throughout exercise. Do not touch mat with hands. Commence standing on right foot, swing the left to front to get momentum, and then under and back as you roll over to erect position on right foot again. Figs. 8, 9, 10, 11.

7. **The Forward Roll Over.** Same as No. 6, starting on left foot.

8. **The Forward Roll Over.** To lying flat on back.

9. **The Forward Roll Over,** with half-turn to face downward.

10. **The Forward Roll Over,** feet spread, arms in different positions.

11. **The Forward Roll Over,** arms folded, come to standing position.

12. **The Backward Roll Over.** Repeat all of the foregoing backwards.

13. **A Dive** is a jump for height or distance, alighting on hands. Bend arms, duck head, and forward roll over. Never strike middle of back first. Commence with the forward roll over (Figs. 1, 2, 3), and gradually increase the height or distance until you can finally go your full limit without jolting or bumping yourself in the least. The rise is usually from both feet.

14. **Dive (1) for distance, (2) for height.**

15. **Combine the Forward Roll Over and Dive for (1) Distance, (2) for Height.**

16. **Fall Forward without Bending at Hips,** with knees stiff; catch on hands.

17. **Fall Backward,** stiff (stage fall).

18. **Fall Forward,** with chest out, and back arched. Turn head to right or left. Continue rolling, and push over to feet.

19. **Combine Front and Back Roll Over,** making continuous movement by crossing legs as you finish the front roll.

20. **Combine Back and Front Roll Over.**

21. **Combine Front, Back, and Front Roll Over** in quick succession.

22. **Combine Back, Front, and Back Roll Over** in quick succession.

23. **Roll Over Backward,** straightening body as you go over to lying-down position on stomach.

24. Lie on back, arms at side horizontal. Bring right hand close to side, turn head to right, and at same time bend at waist, bringing feet over head, then snap over quickly on to stomach, facing in opposite direction.

25. Hold left toe with right hand and jump right leg through.

26. Hold right toe with left hand and jump left leg through.

27. Hold stick in hands, jump through and back in order to learn to double up close for back or forward somersault. Fig. 12.

28. **Head Stand.** Place the hands in line on the mat, and the head between and about 10 inches in advance, forming an equilateral triangle; throw feet over head, with knees together and toes pointed upward; hold 30 seconds, then forward roll over.

29. **Hand Stand.** Beginners can best learn this by placing the hands on floor 1½ feet from wall and throwing the feet up against the wall. In practising hand stands on the floor, come down easy to feet the same way you threw into position, or pick up right or left hand as you overbalance and come to feet, or bend arms and roll over. Fig. 13.

30. **Head Stand.** Push up into hand stand without losing balance.

31. **Forward Roll Over into Head Stand.**

32. **Backward Roll Over into Head Stand.**

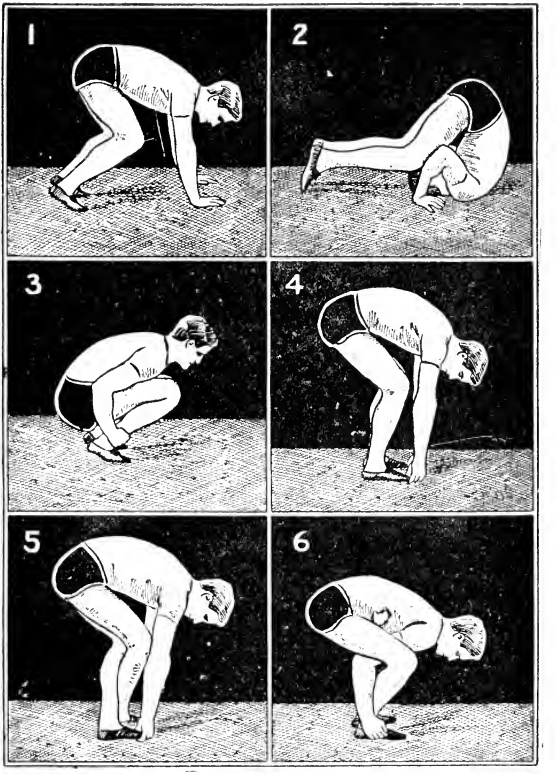
N. B.—Do not compete in holding head stands for time. Caution boys especially against this foolish practice.

33. **"Bucking Broncho."** Throw almost into hand stand, bend knees and push up hard with hands, throwing head and shoulders up and back, snap feet to floor and come to standing position; jump to hands again and repeat.

34. **The Forward Roll Over into Hand Stand.**

35. **The Backward Roll Over into Hand Stand.**

36. Body stiff, face downward, resting on hands and feet,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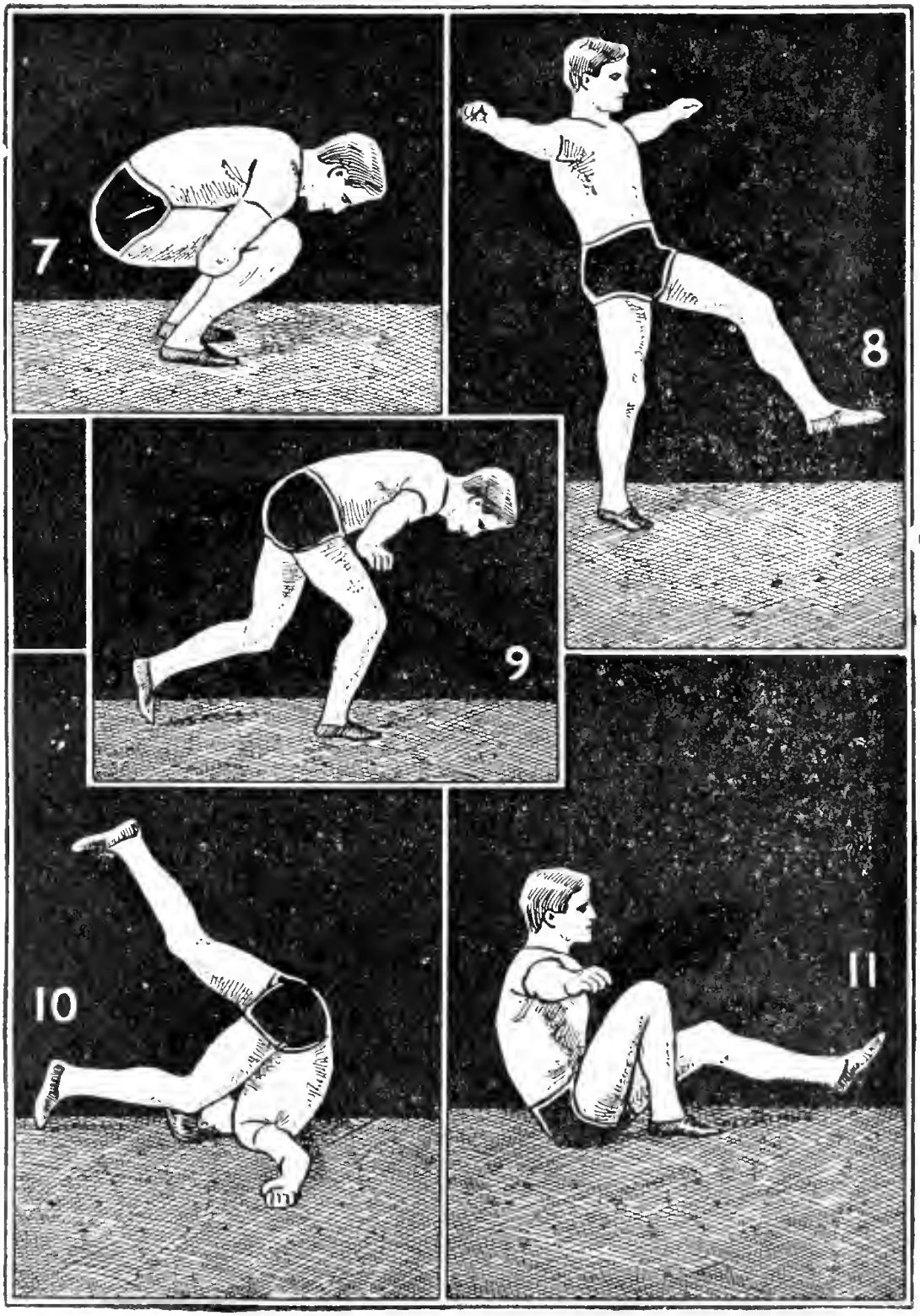
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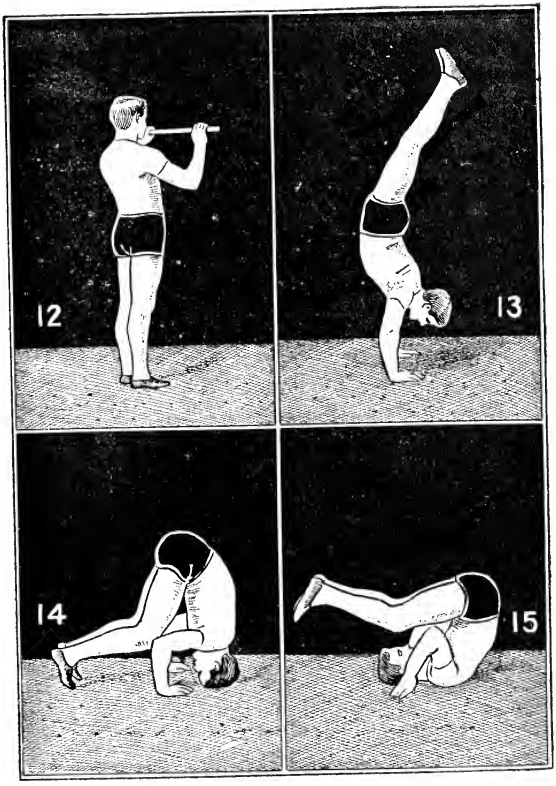
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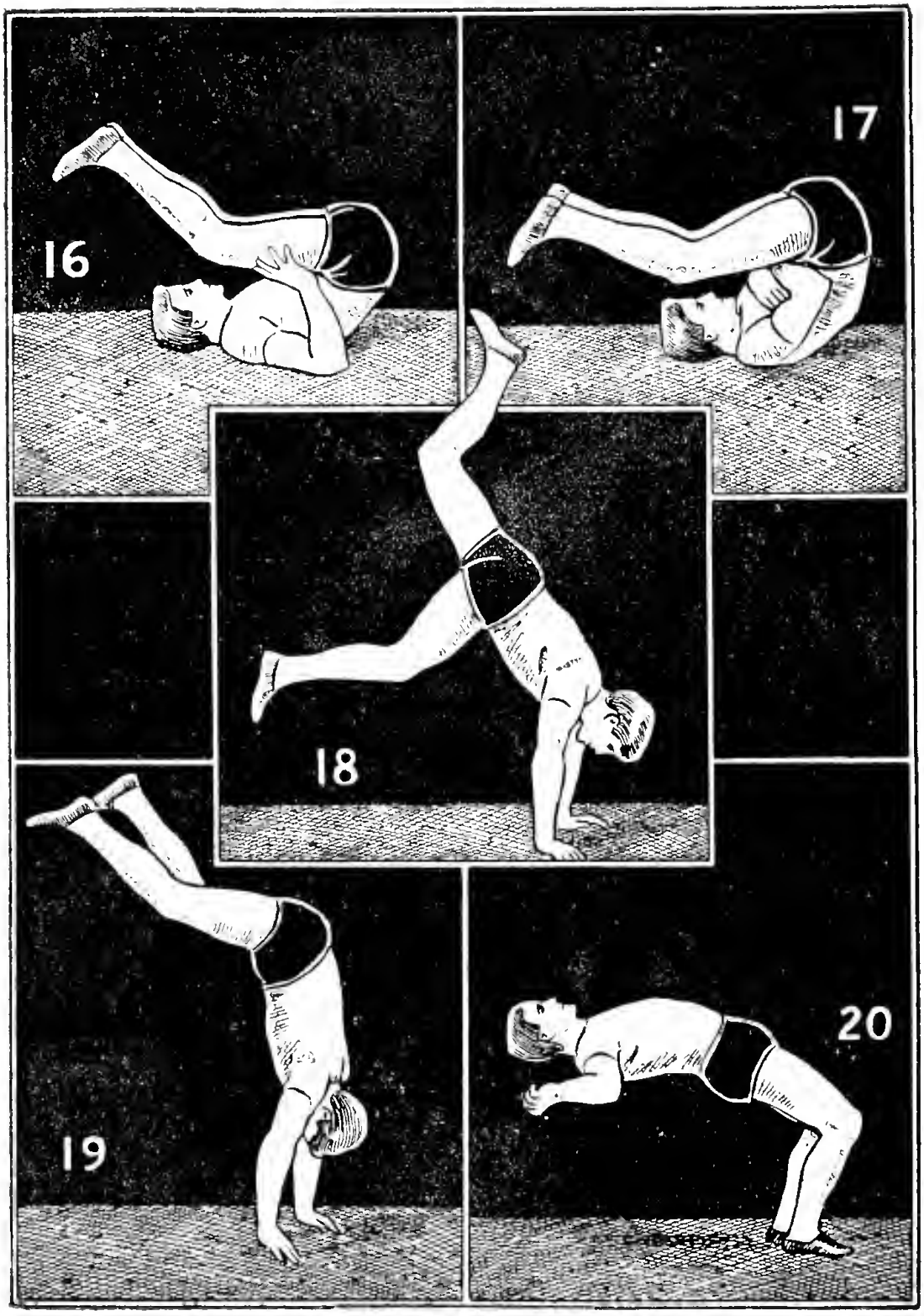
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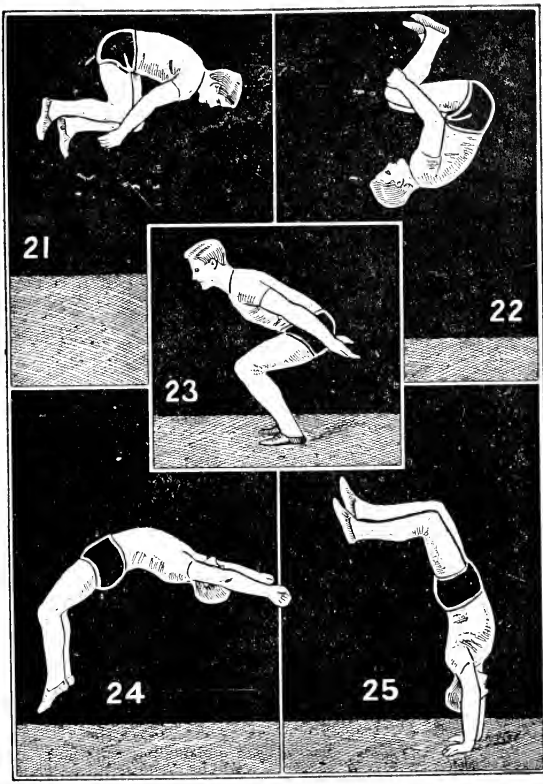
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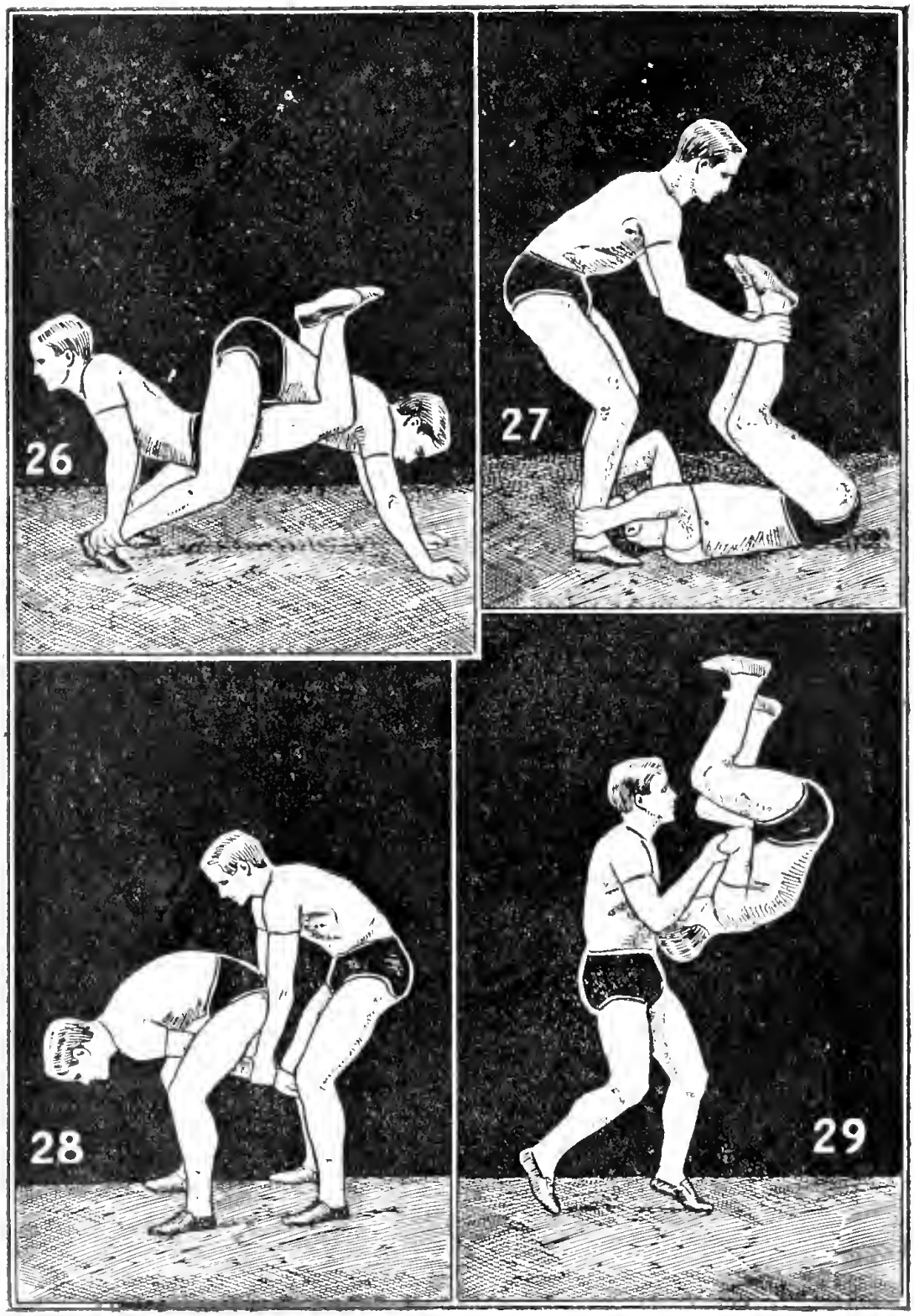
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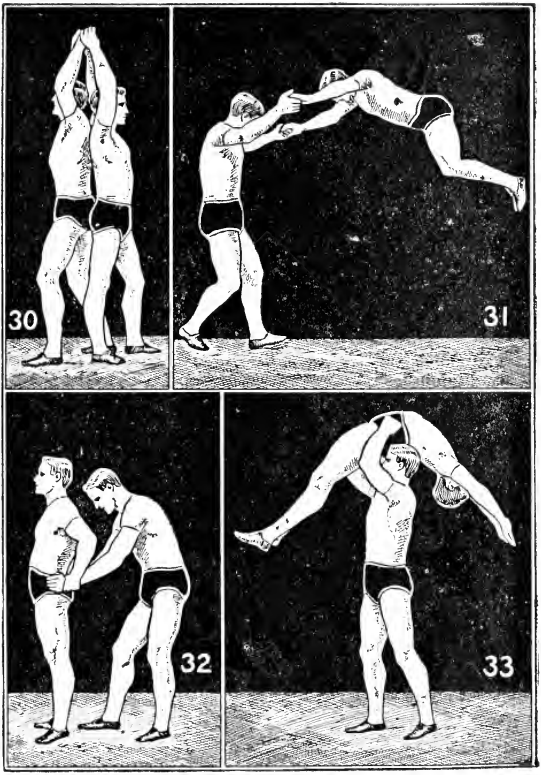
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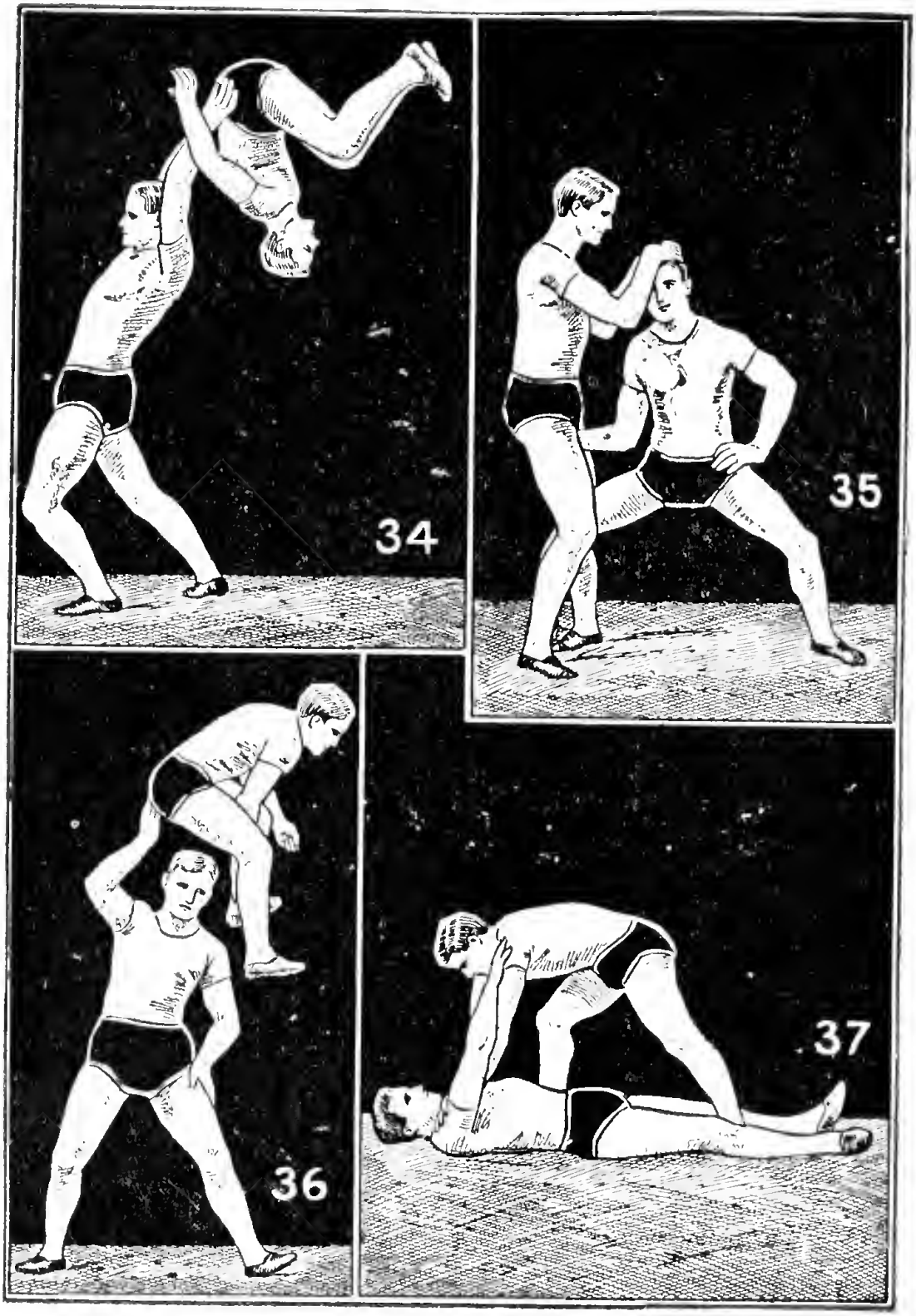
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without raising either hand, jump between hands to lying-down position on back.

37. **Roll Down.** From hand stand incline head and shoulders forward, bend arms until chest touches, keep back arched, roll to lying-down position on mat, then to knees, and jump to feet immediately.

38. **Head Stand and Roll Down.**

39. Lie on back, raise feet up in air, place the hands just above the hips, with elbows, upper arms and shoulders touching mat, bend and straighten knees with a snap, thus progressing backward on shoulders.

40. **Head Spring.** Place head (touching upper part of forehead, not the back of head) between and in advance of hands on mat. As you snap feet over shove hard from hands and head. Alight in standing position, with knees bent. Fig. 14.

N. B.—Always place head on mat easily, thus obviating jars.

41. Same as No. 40, only alighting knees stiff and back arched.

42. Same as No. 40, without hands.

43. Repeat No. 40, alight on right foot, and hold balance.

44. Repeat No. 40, alight on left foot, and hold balance.

45. **Twisting Head Spring.** Same as No. 40, only twist the body to right or left, and land facing starting position.

46. **The Balance Head Spring.** From head stand bend at waist, with knees stiff, execute head spring without touching feet to floor.

47. Same as No. 46, but with neck spring.

48. **Neck Spring** (snap up). Place back of head and neck on mat between hands. Same movement as head spring. Fig. 15.

49. **Neck Spring.** Hands on front of thighs, shove hard with hands and head as you snap feet over. Fig. 16.

50. **Neck Spring** with arms folded. Fig. 17.

51. **Hand Spring.** Jump from either foot on to hands. Keep the arms perfectly stiff, and as the feet are thrown quickly over (chest and stomach well out and head back) shove hard from hands and alight on feet with bent knees. Figs. 18, 20.

52. **Leaping Hand Spring.** Jump from both feet on to hands. Movement same as in No. 51. Touch hands lightly as you go over. Figs. 19, 20.

53. Same as No. 51, only alight on balls of feet, with knees stiff, back arched, and perfectly erect position.

54. **The Cart-wheel.** Either right or left side leading, keep the head back, chest and stomach well out, hands and feet as well separated as possible. If right side leads, place right hand on floor following with left, then left foot followed by right. Continue movement by keeping in a straight line.

55. **Round Off.** Start as in cart-wheel, but hand spring movement, turn, snap the feet down quickly, and alight facing starting-point.

56. Roll over backward to back of neck and snap up.

57. Jump, turn in air, alight facing starting-point, and back roll over.

58. Combine hand stand (Fig. 13) and snap up (Fig. 15).

59. A row of hand stands and snap ups in quick succession.

60. Combine two, three, or four head springs in quick succession.

61. Combine two, three, or four neck springs in quick succession.

62. **Alternate Head and Neck Springs** in quick succession.

63. **Hand Walk.** Throw up into hand stand, and as you overbalance take a step forward with either right or left hand, and continue.

64. **Hand Walk Forward.**

65. **Hand Walk Backward.**

66. **Hand Walk in Circle.**

67. Hand walk forward, turn, and come back to starting-point.

68. Hand walk forward, touching chest at each step.

69. Hand walk, forward roll into hand stand, and repeat.

70. Two head springs into hand stand, roll down (37), pull through (36), and snap up (48).

71. Dive, back roll into hand stand, to neck, and snap up.

The combinations of the foregoing movements are infinite, and the inventive teacher can repeat the same exercises in a different order or combination, making new movements out of the old ones, and thus keeping up the interest and enthusiasm from day to day. Select ten or twelve movements from the preceding list, and give as a drill for one lesson. Change the order, and repeat for next lesson; but give an entirely different drill for third lesson. As the pupils advance let them put in their own combinations at the end of each lesson.

ADVANCED TUMBLING

Note.—Advanced tumbling should never be attempted alone the first time. A belt, with an assistant on either side, is the usual method of practising these exercises. Do not hurry. Practise one movement day after day until you are proficient, remembering that a difficult movement once mastered is as simple as any other, and that after learning you can execute them with ease and impunity. It is folly, not bravery, to attempt movements by yourself that you are not sure of; and you are the one to decide this, not others.

1. **Back Somersault.** From standing position, hands by the side, spring straight up (do not bend forward as you stoop for spring), throwing hands high above head; throw the head back, and, grasping the knees, pull them well in at the highest point of jump, at the same time kicking the feet forward; let out, and come down straight. Fig. 21.

2. From a hand stand snap to feet and a back somersault.

3. Round off and a back somersault.

4. Two, three, or four back somersaults in a swing.

5. Forward run and back somersault.

6. Cart-wheel, round off, and back.

7. **Front Somersault.** Run forward, and as you run increase your speed; spring from either right or left foot a distance of from 8 to 12 feet, landing on the balls of both feet, hands by the side (Fig. 70), chest out, and head erect (not forward); jump for height, lifting the body by a quick upward swing of

the arms, and at the highest point of the jump throw head and hands down with a snap, grasp the legs a short distance below the knees and pull in close and hard, doubling up close, then straighten out quickly and alight on balls of feet in erect position. Fig. 22.

Note.—Make the jump for height the fastest part of the run, and as you jump increase your speed so as to get the greatest height attainable, double into as small a ball as possible, and then let out and come down perfectly straight, and you have the ideal somersault.

8. **Standing Front Somersault.** Hands by the sides (Fig. 70), spring straight upward, lifting with arms and shoulders, and as you reach the limit of your height throw head and hands forward with a snap, grasping ankles and pulling in close; then let out again quickly.

9. **The Layout Front Somersault.** (Done principally from the spring-board, although a few exceptionally fine jumpers can do it from the mat.) As you rise for the somersault throw the hands well out in front, with arms perfectly stiff, head up, chest out; hold this position for a second, then make a quick, close double as in the ordinary somersault; let out and come down straight.

10. **One Foot Front.** Stand on one foot and execute regular somersault.

11. **Knee Front.** From kneeling position raise to feet, regular somersault.

12. **Head Spring and Front Somersault.**

13. **Hand Spring and Front Somersault.**

14. **Two Front Somersaults in Quick Succession.**

N. B.—A double somersault should never be attempted by amateurs.

15. **Back Hand Spring, or "Flip"** (the most difficult of all tumbling exercises). From standing position raise the heels, bend the knees, let the hands go back past sides, keep the body, from waist up, straight, stoop until hands can nearly touch the mat; from this position throw the hands swiftly forward and upward, at the same time raise on toes (but do not jump at all), arching the back well in, head and arms thrown as far back as possible; pull the body over by momentum of shoulders, body, and head. Figs. 23, 24, 25.

16. **Hand Stand, Snap to Feet, and Flip.**

17. **Hand Stand, Snap to Feet, Flip, and Back.**

18. **A Row of Flips; Two or More in Quick Succession.**

19. **Alternate Flips and Backs.**

20. **Round Off and Flip.**

21. **Round Off, Flip, and Back.**

22. **Twisting Flip.** As the hands hit, twist the body and alight facing in opposite direction from which you started.

23. **A Series of Twisting Flips.** The hands strike about the same place each time.

24. **Twisting Back.** Regular movement, only throw head hard to right or left and alight facing opposite direction from which you started. Fig. 74.

25. **Hand Stand, Snap to Feet, and Twisting Flip.**

26. **Round Off and Twisting Back.**

27. **Running Twisting Forward Somersault.** Regular movement, only throw head hard to right or left, and alight facing direction from which you started.

28. **Running Side Somersault.** Alight sideways and turn sideways.

Devise, invent, and make up your own combinations.

COMBINATION TUMBLING

By this is meant a series of combinations by two or more men exercising together. In these exercises a belt must always be put on for the first trial (or assistants stand on either side), however simple the exercises may appear, and must be kept on until the exercise is thoroughly mastered, which would mean that you have each other's time and act in unison. Work with the same men all the time; beware of strangers, even if both of you understand the exercises. Do not be afraid to use caution and common sense. Only combinations that can be mastered by business men with limited time have been put in; the more dangerous ones, requiring much time, being intentionally omitted. In all of the following exercises No. 1 is the heaviest or "bottom" man; No. 2, "middle" man; and No. 3, "top" man (or lightest man).

ELEPHANT WALK.

1. Stand facing each other. No. 2 puts hands on No. 1's shoulders, springs up and throws legs around No. 1's waist, then leans backward and drops between No. 1's legs, who then bends forward and places hands on floor keeping knees stiff; No. 2 places hands on No. 1's heels and straightens arms; No. 1 then walks off (also with a small boy on top), or untwists legs and both do a roll over. Fig. 26.

WALK OFF.

2. No. 2 makes hand stand, feet well apart; No. 1 steps in, letting legs rest on hips, and grasps heels of No. 2, who straightens himself, arms folded; No. 1 then walks off with him. For first part of movement see Fig. 96.

HAND STAND ROLL.

3. No. 1 stands erect; No. 2 makes hand stand close to No. 1's heels, his legs dropping over No. 1's shoulders, who grasps No. 2's ankles, bends forward, quickly pulling No. 2 over to a standing position; No. 1 now does a hand stand and is thrown over by No. 2. Repeat in quick succession. For first part of movement see Fig. 99.

DOUBLE ROLL.

4. No. 1 lies on back, legs raised to vertical, with knees slightly bent, and grasps No. 2's ankles, who stands close to his head and also grasps No. 1's ankles; No. 2 dives forward, held back slightly by No. 1 to break his fall; continue roll. Fig. 27.

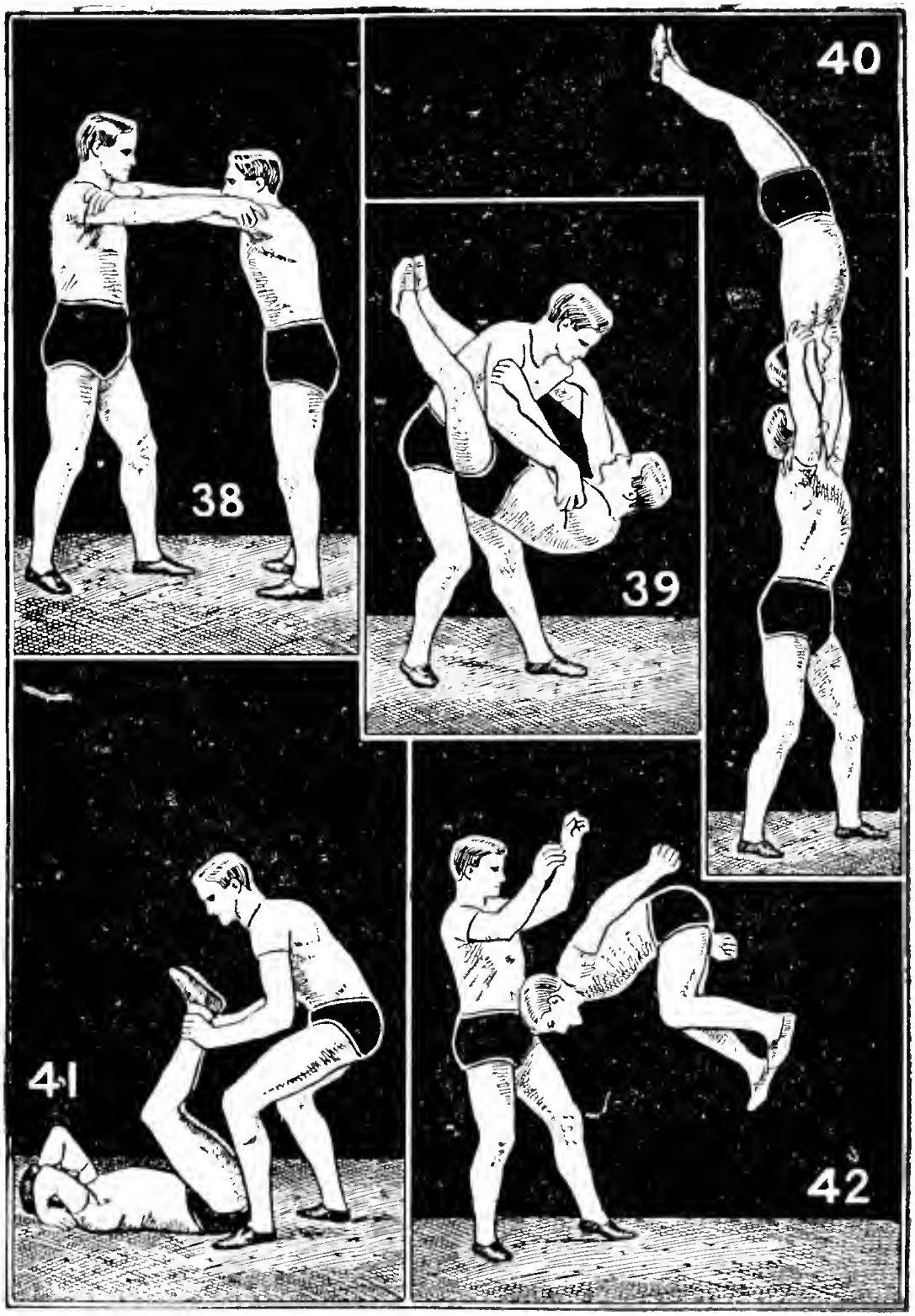
5. Repeat No. 4 backward.

HANDS BETWEEN LEGS AND PULL OVER.

6. Facing same direction, No. 2 leans forward and places his arms between his own legs; his wrists are grasped by No. 1, who lifts (as No. 2 jumps) and throws him over to his feet. Figs. 28, 29.

BACK TO BACK AND OVER.

7. Stand back to back, arms extended vertically, grasp each other's hands, heads turned to opposite sides; No. 2 springs and No. 1 pulls No. 2 over shoulders to feet. No. 2 must never relax muscles on this exercise. Figs. 30, 31.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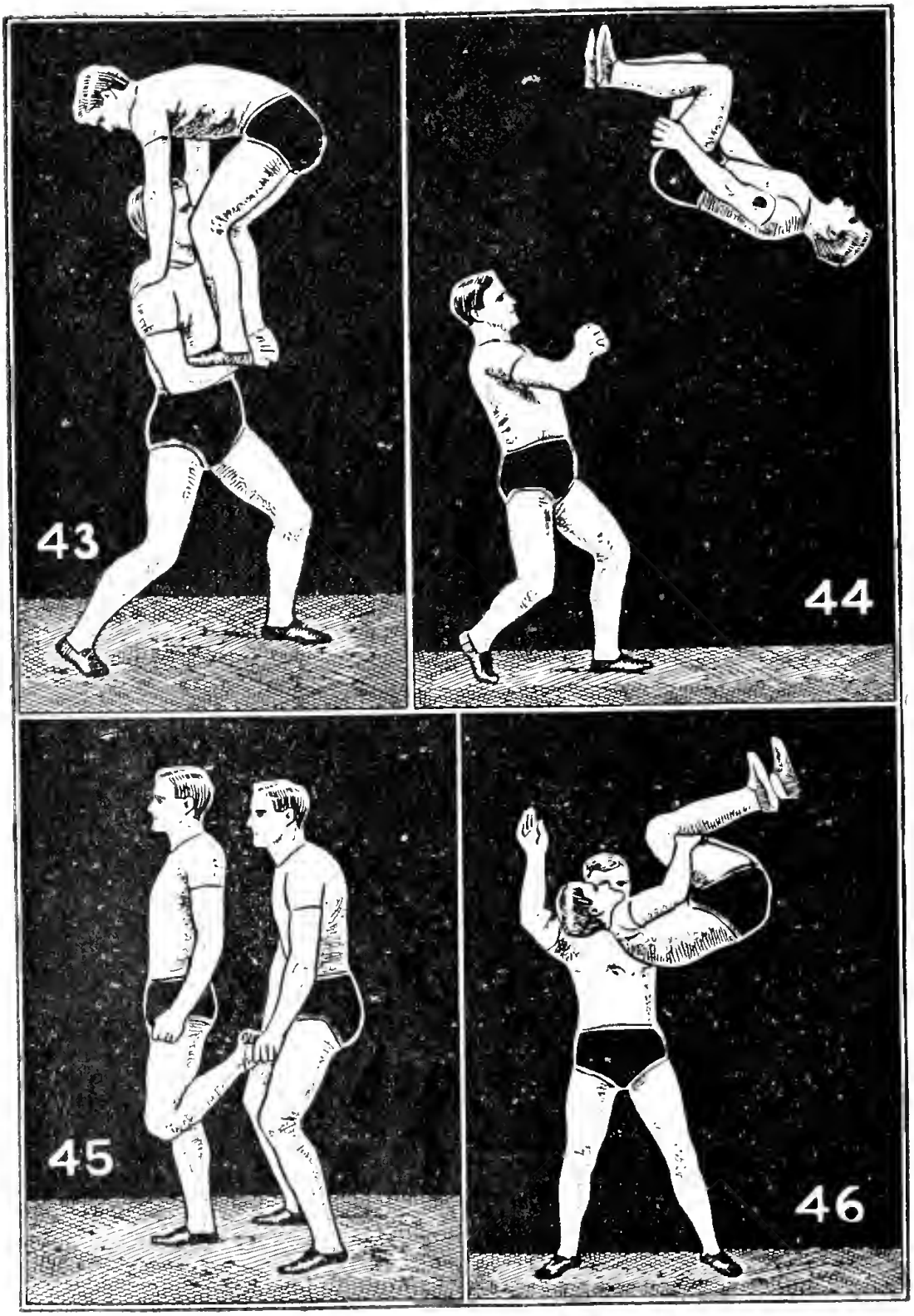
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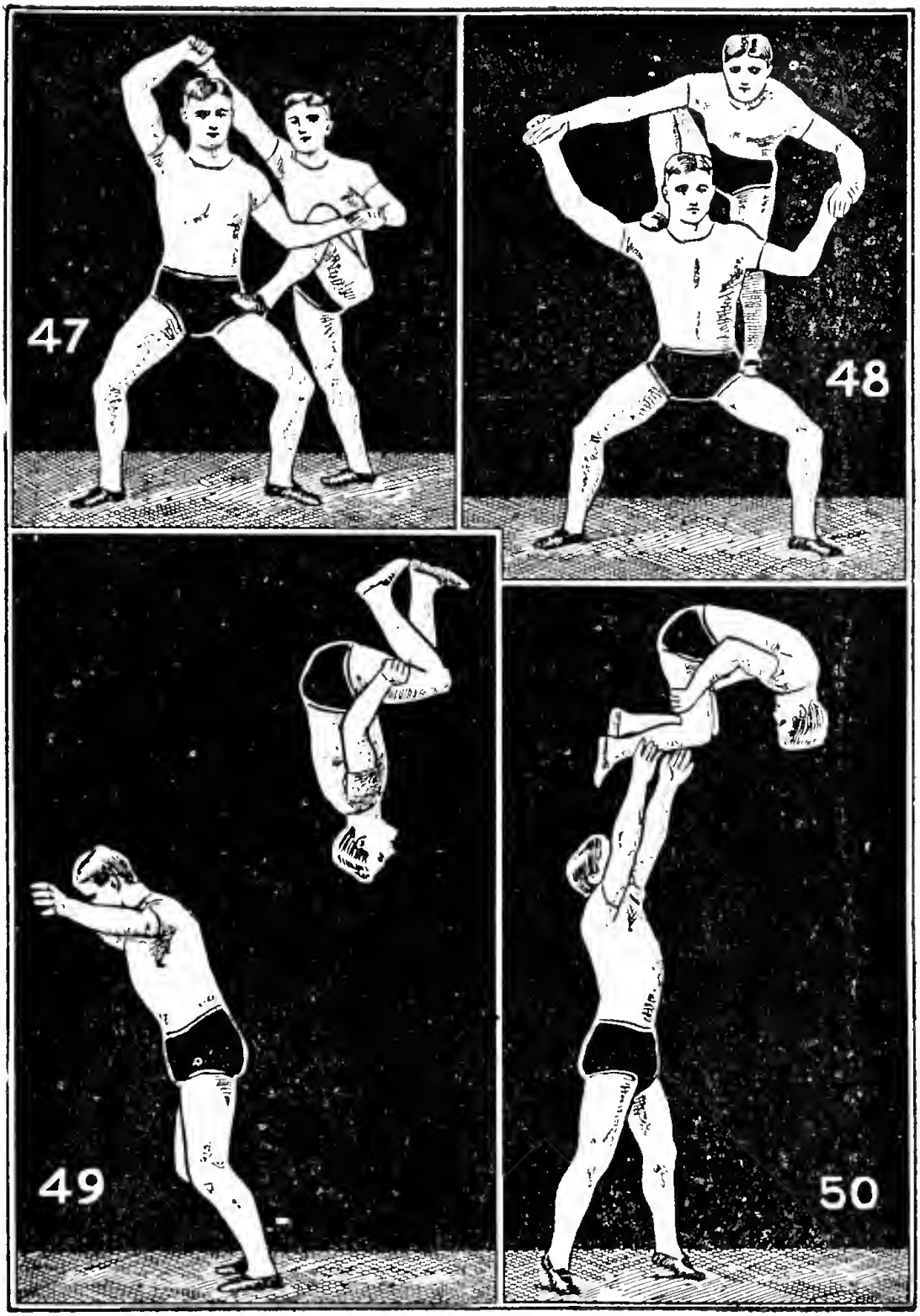
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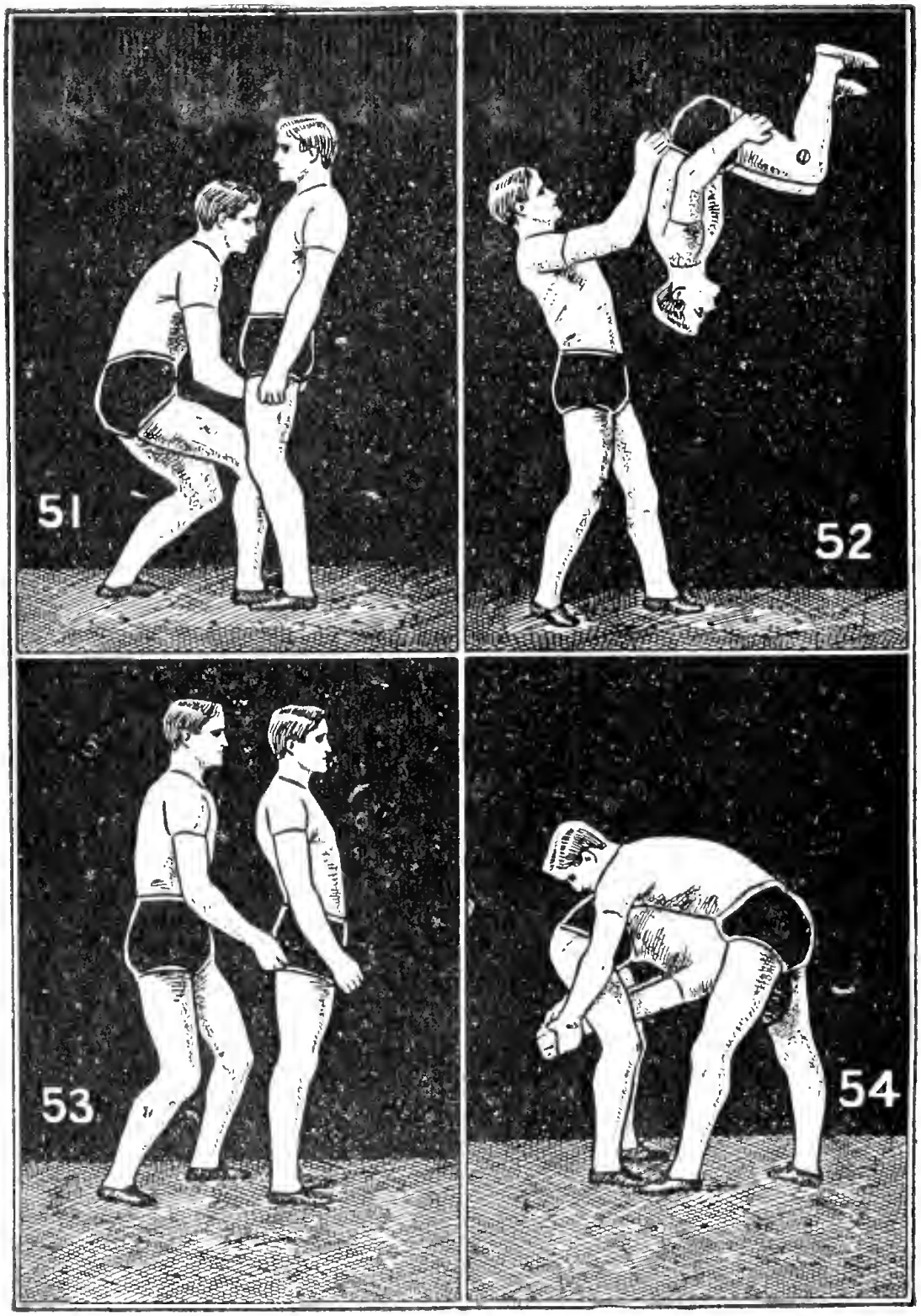
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BALANCE ON HEAD AND THROW OVER.

8. Facing in same direction, No. 1 grasps No. 2 on either side of belt, and No. 2 grasps No. 1's wrists and springs up, assisted by No. 1 lifting, and comes to balance position on No. 1's head; No. 2 then throws his head back, pulls legs up and snaps over to feet, assisted by a slight push from No. 1. Figs. 32, 33

THROW OVER HEAD.

9. Same as No. 8, only in quicker time. No. 2 does not touch head of No. 1, who holds his arms perfectly stiff, and throws No. 2 over his head in one movement. Fig. 34.

10. Leap-frog, roll over, and continue.

STRADDLE VAULT OVER.

11. No. 1 places one hand under No. 2's crotch; No. 2 places both hands on No. 1's head and vaults over. Figs. 35, 36.

STRADDLE OVER FROM FLOOR.

12a. No. 2 lies down and No. 1 places foot close up and between No. 2's legs and grasps both hands of No. 2, who springs up and straddle vaults over, while No. 1 pulls, then pushes his hands to horizontal with quarter turn of body.

STRADDLE OVER AND HAND SPRING.

12b. Position and first part of movement same as No. 12a, only No. 1 grasps No. 2's wrists; as No. 2 passes over No. 1's head, he doubles up close and does a hand spring from No. 1's hands.

LOW ARM HAND STAND.

13. No. 1 lies on back, feet apart; No. 2 steps in and, bending forward, they place hands on each other's shoulders; No. 2 does hand stand, No. 1 holding him in position. Fig. 37.

HIGH ARM HAND STAND.

14. Facing each other, hands on shoulders, No. 2 jumps up, crossing feet behind back of No. 1, who leans over and immediately comes to erect position; No. 2 pushing up into high arm stand. Figs. 38, 39, 40.

HIGH ARM HAND STAND.

15. Repeat No. 13. No. 2 is let down easily by No. 1, and rolls over, retaining hold on each other's shoulders, to lying down position on backs; No. 1 does a quick back roll, and lands on feet between No. 2's spread legs, and immediately pulls No. 2 (who assists by jumping) to high hand to shoulder stand in air. Fig. 40.

16. From position of Fig. 39, No. 1 throws No. 2 hand spring over head.

PULL UP FROM FLOOR.

17. Facing each other, and six feet apart, No. 2 dives halfway over, keeping palms of hands on mat by side of head, legs vertical; No. 1 grasps ankles and gives him a quick pull up and throw away; No. 2 assisting by pushing with his hands and head, and coming to standing position facing No. 1. Figs. 41, 42.

18. Same as No. 17, only both face same direction; No. 2 does forward roll; No. 1 pulls No. 2 to feet.

BACK FROM FOREARMS.

19. No. 1 stands body straight, feet spread, knees bent, and, interlacing fingers, holds forearms horizontal; No. 2 places hands on No. 1's shoulders, jumps to forearms, and back somersaults off. Figs. 43, 44.

ONE LEG FORWARD.

20. Facing same direction, one foot apart, No. 2 bends knee and places right or left ankle in No. 1's hands; No. 2 jumps directly up (assisted by No. 1), cuts close, and does a high forward somersault, coming down straight. Figs. 45, 46.

MOUNT TO SHOULDERS.

21. No. 1 facing front, No. 2 to left of No. 1 and right face; No. 1 bends knees slightly, feet well apart, holds right hand over head, palm up, and grasps No. 2's right hand, also No. 2's left with his left hand; No. 2 places left foot on No. 1's left thigh; as each pulls hard with right hand, No. 2 jumps and places his right foot on No. 1's right shoulder and left on left shoulder, lets go of No. 1's hands and stands erect, heels together on balls of feet, knees straight, and legs pressing hard on No. 1's head. Figs. 47, 48.

MOUNT TO SHOULDER WITHOUT HANDS.

22. Position same as in No. 21, only No. 1 folds arms; and No. 2, taking a short run, mounts to shoulders without using hands.

LIFT TO SHOULDER.

23. Facing in same direction, No. 1 grasps No. 2's hands and lifts to shoulders, No. 2 doubling up close in order to bring his feet to No. 1's shoulders. For first part of movement see Fig. 57.

TO DISMOUNT.

24. No. 1 reaches up and grasps hands of No. 2, who jumps down between.

25. Both lean forward as far as possible; No. 2 jumps to feet, and both do a forward roll over.

BACK FROM SHOULDERS.

26. Mount as in No. 23; as No. 2 jumps, No. 1 assists by lifting hard. Fig. 49.

FRONT FROM SHOULDERS.

27. Mount as in No. 23; as No. 2 jumps, No. 1 assists by lifting hard. Fig. 50.

CROTCH BACK.

28. Facing each other, No. 1 places hands under No. 2's crotch, and lifts hard; No. 2 doing a regular back somersault. Figs. 51, 52.

CHOTCH FRONT.

29. Facing in same direction, No. 1 grasps No. 2 by seat and lifts hard; No. 2 doing a regular front somersault. Fig. 53.

PULL TO SHOULDERS.

30. Facing each other, No. 2 leans forward, putting his hands between his own spread legs; No. 1 leans over and grasps No. 2's wrists; a quick pull lands No. 2 on his shoulders straddle seat. He then places his hands under thighs of No. 2, who, in turn, does a back somersault off, assisted by a slight shove from No. 1. Fig. 54.

31. Same as No. 30, only No. 2 puts his feet on No. 1's shoulders. Back or forward somersault off.

PULL TO SHOULDERS AND HAND SPRING OVER.

32. Position same as in Fig. 54. No. 1 grasps No. 2's wrists, pulls him up, and places his hands on his shoulders; No. 2 continues movement by hand spring over.

NECK LIFT.

33. Facing same way, No. 1 puts head between legs of No. 2, who leans back quickly, and No. 1 straightens up and tosses him over his head; No. 2 doing back somersault movement. Figs. 55, 56.

TWISTING BACK OVER HEAD.

34. Same as No. 33, only No. 2 throws head quickly to right or left, and alights with back to No. 1.

DOUBLE DIVE.

35. Facing, and 6 feet apart, No. 1 dives forward, and as his head rests on mat—that is, half way over—with feet well apart, No. 2 dives over, comes to feet quickly; each turns, and repeat movement.

TRIPLE DIVE.

36. No. 1 in middle and facing No. 2, No. 3 back of No. 1 and facing in same direction; No. 1 dives forward and No. 2 dives over No. 1 (as in No. 35); No. 3 immediately dives over No. 2, and No. 1 has turned and now dives over No. 3; No. 2 again dives over No. 1, and repeat as before.

LIFT AWAY HAND SPRING.

37. Facing in same direction, No. 1 grasps No. 2's hands and lifts him to standing position on shoulders; No. 2 jumps to mat between hands, and, without letting go, immediately jumps straight up, doubling up as he goes, stiffening arms and pressing hard against hands of No. 1, who pushes up, straightening arms; No. 2 continues on through, and does a hand spring from No. 1's hands. Figs. 57, 58.

THREE JUMPS AND LIFT AWAY HAND SPRING.

38. Position same as Fig. 57, only No. 1 rests right knee on mat; No. 2 jumps over No. 1's right arm, and immediately back to first position, in same manner over left arm, then over head and back again; No. 1 now rises to feet immediately, No. 2 doing lift away hand spring as in No. 37.

39. Same as No. 37, only go straight from mat to hand spring without going to shoulders.

ONE LEG BACK.

40. No. 2 places right leg in No. 1's hands, leg horizontal, knee stiff; as No. 2 jumps and presses down with right leg No. 1 lifts hard, throwing him a back somersault. Figs. 59, 60.

LAY OUT BACK.

41. No. 1 interlaces fingers, palms up, and stoops well down, feet spread; No. 2 places hands on shoulders (also without placing hands on shoulders) and right foot in his hands, jumps, straightening right leg, and does a hollow back somersault, No. 1 lifting up hard. Figs. 61, 62.

LAY OUT BACK.

42. Same as No. 41, only No. 1 places hands behind back instead of in front.

GAINER LAY OUT BACK.

43. Same as No. 41, only No. 2 turns over No. 1's head, alighting on opposite side from which he started.

RUNNING FORWARD OVERHEAD.

44. Position of No. 1 same as in No. 41; No. 2 runs, placing hands on No. 1's shoulders, and right foot in hands, jumps,

straightening right leg, and goes for regular front somersault, alighting with back to No. 1.

HAND SPRING TO SHOULDERS.

45. Facing each other, No. 1 bends knees slightly; No. 2 takes a run and places hands on No. 1's knees and does a hand spring up, assisted by No. 1 grasping him by hips. Now quick roll back from shoulders. Fig. 63.

HIGH ARM HAND SPRING.

46. No. 1 spreads feet and braces himself, bending knees and getting low; No. 2 takes a good run, places hands on shoulders of No. 1, who grasps his thighs and pushes him over for a hand spring. Fig. 64.

PULL UP AND BACK FROM HANDS.

47. Facing each other, and 6 feet apart, No. 2 rolls over and pushes his feet well up under him; No. 1 steps in, grasping No. 2's hands, pulls him up, and then pushes him up and away; No. 2, doubling up close, pushing hard with hands, throws head back and goes for back somersault. Figs. 65, 66.

BACK FROM BACK.

48 Facing in same direction, No. 1 bends over, placing hands on knees; No. 2 jumps to back, between shoulders, and does a back off, No. 1 lifting up hard. Figs. 67, 68.

FORWARD FROM BACK.

49. Facing each other, and about 20 feet apart, No. 1 stoops over, placing hands on knees; No. 2 runs and jumps on No. 1's back, between shoulders, and immediately goes for front somersault, as from spring-board, No. 1 throwing hard. Fig. 69.

HIGH HAND-TO-HAND HAND STAND.

50. Lift to shoulders, as in No. 23. From position of Fig. 91, No. 2 throws into hand stand.

MOVEMENTS FROM POSITION OF FLOOR

BACK FROM HANDS.

51a. No. 1 lying on back, hands close to head; No. 2 steps in No. 1's hands and does a back somersault, assisted by No. 1. Figs. 70, 71.

51b. Same as No. 51, only No. 2 takes a few steps and jumps in No. 1's hands, going for back immediately.

BACK FROM HANDS.

52. No. 1 sits on floor, feet spread, and places hands in front, palms up; No. 2 steps in hands as before, and back out.

FRONT FROM HANDS.

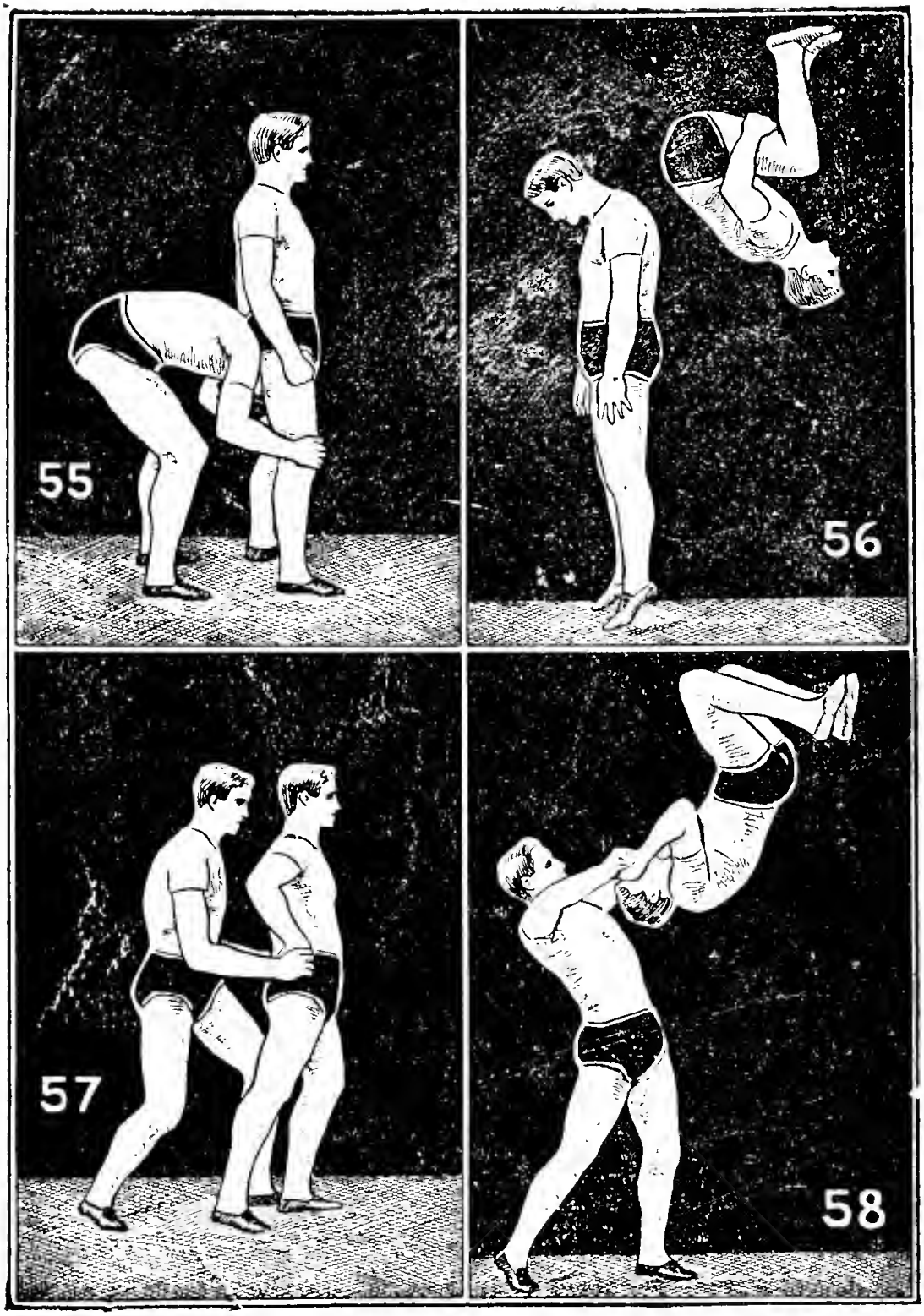
53. No. 2 places toes in No. 1's hands, and does a regular front, assisted by No. 1. Fig. 72.

TWISTING BACK FROM HANDS.

54. Same as No. 51, only No. 2 twists completely around by turning head to right or left as he goes over, and alights facing in opposite direction from which he started. Fig. 73.

HAND SPRING OVER FEET.

55. Clasp hands (do not interlace fingers), No. 1 placing feet on No. 2's body, No. 2 jumps, and No. 1 pushes hard with feet and keeps his arms stiff, No. 2 pushing off with hands as he goes over. Figs. 74, 75.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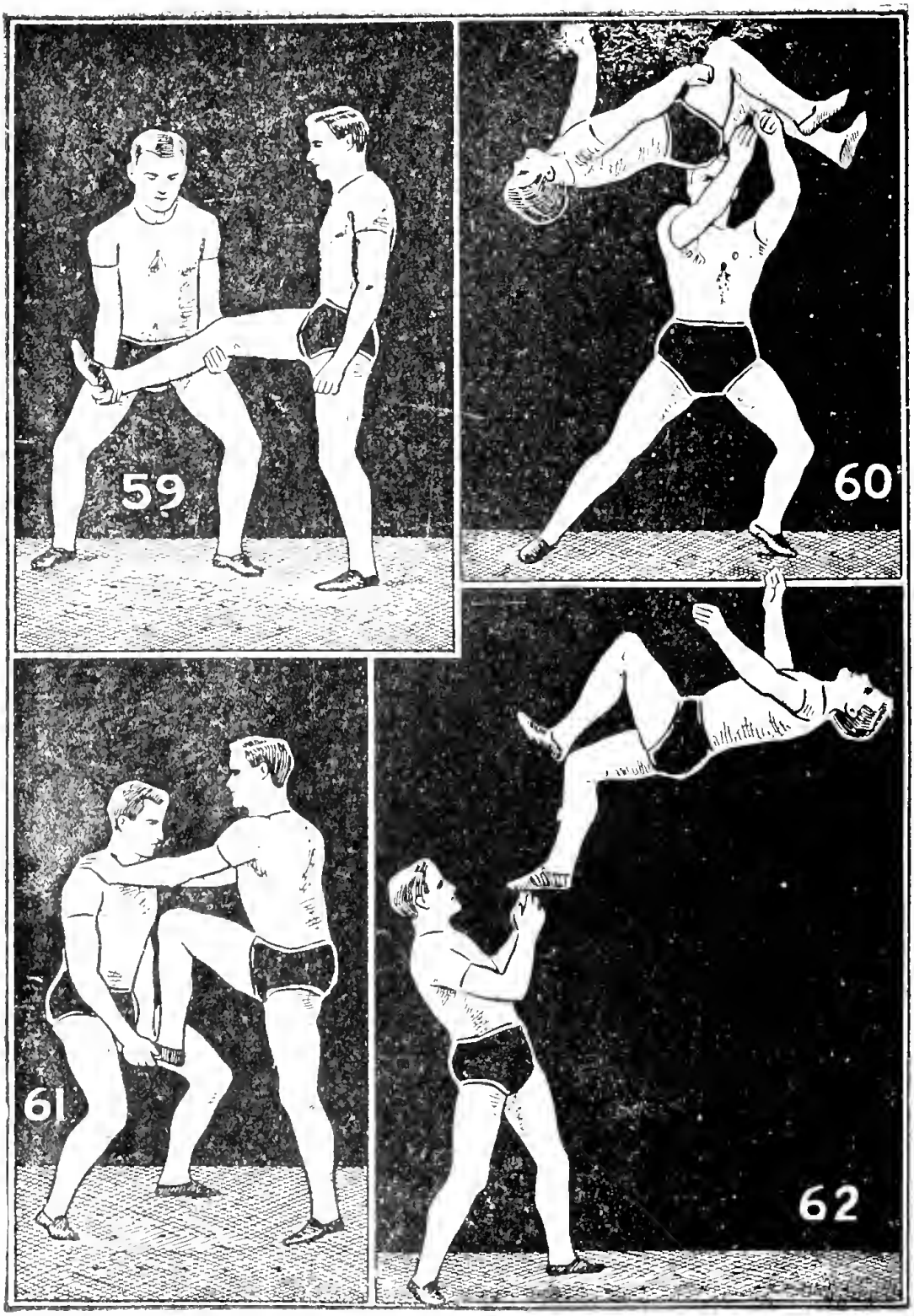
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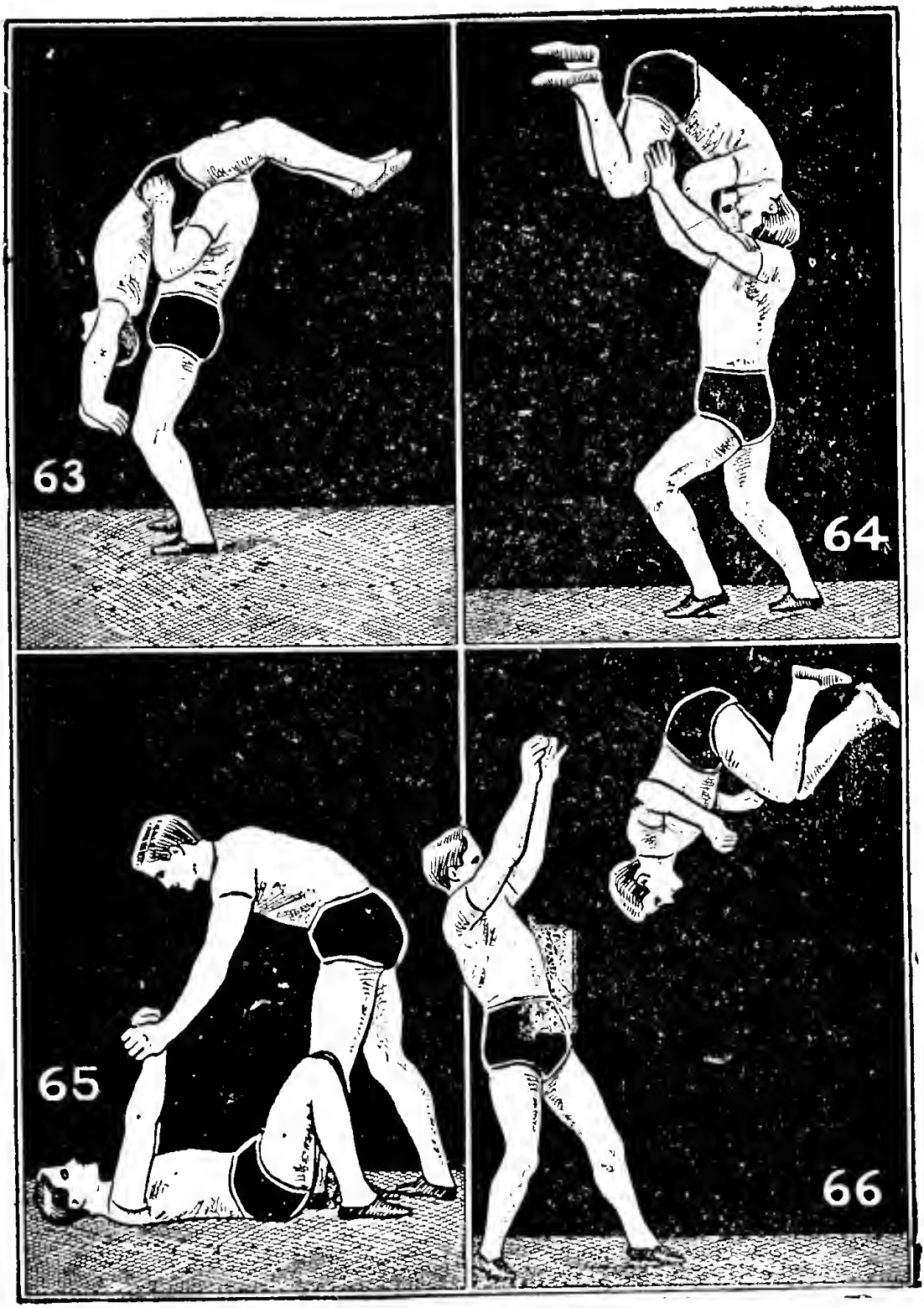
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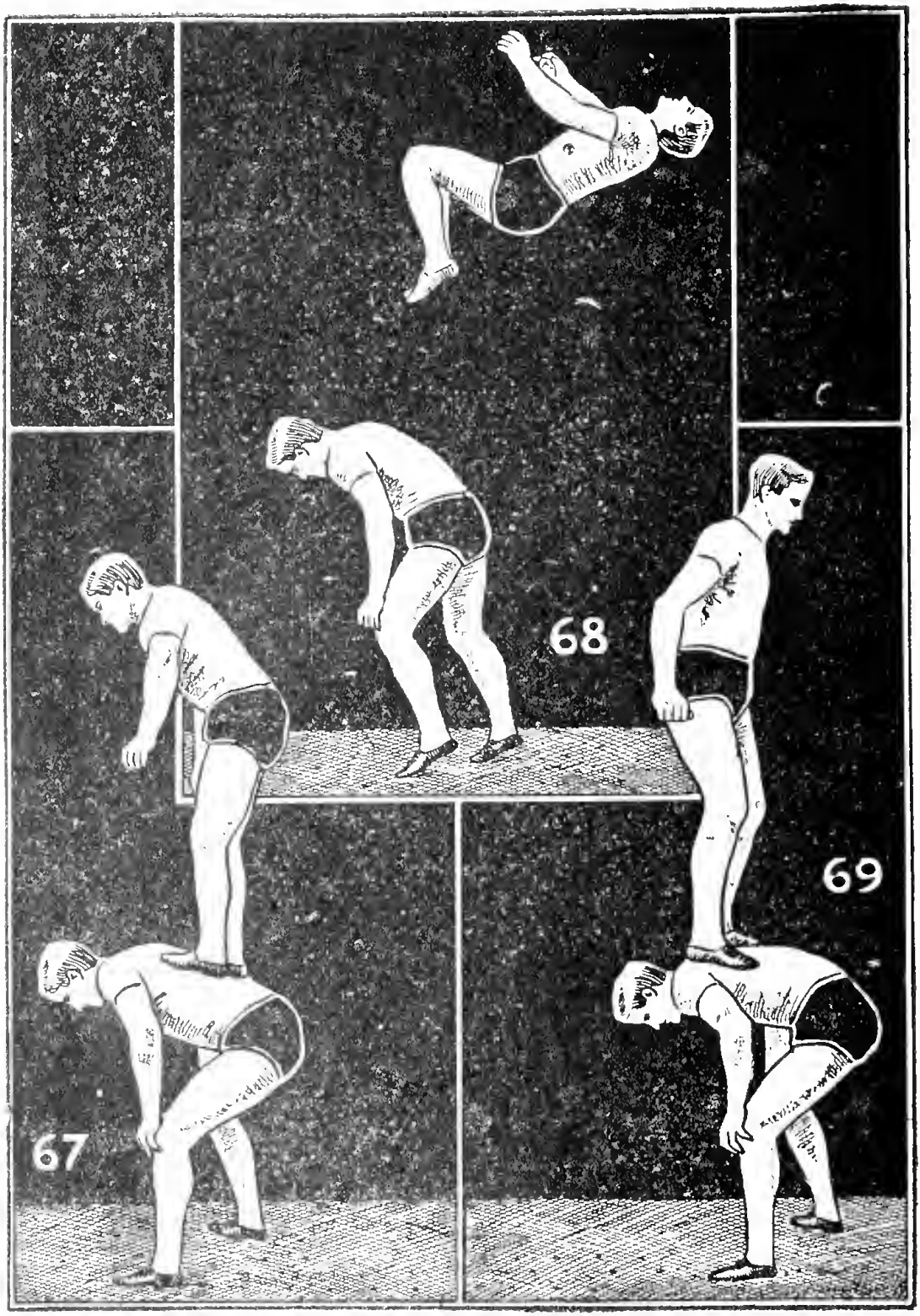
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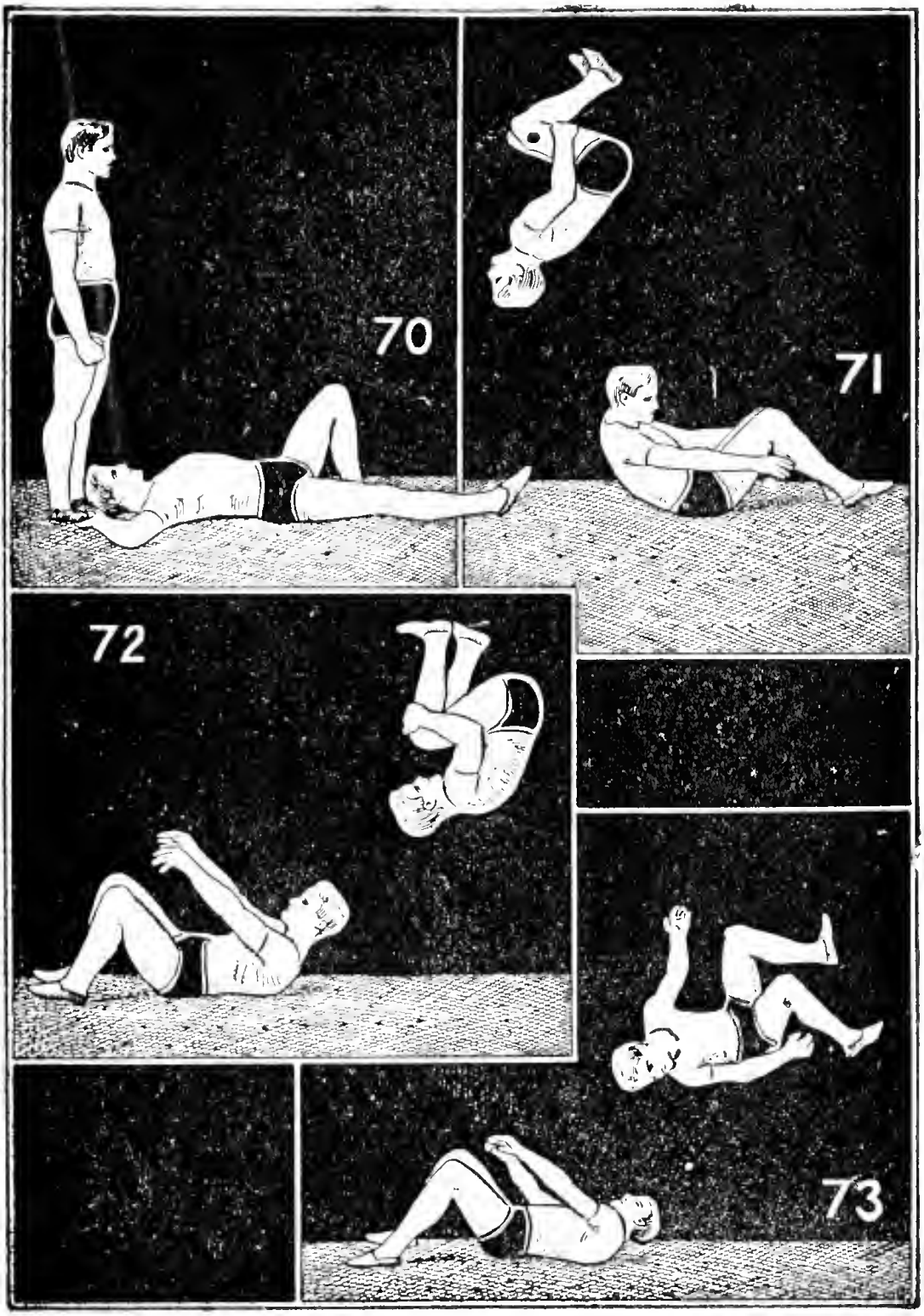
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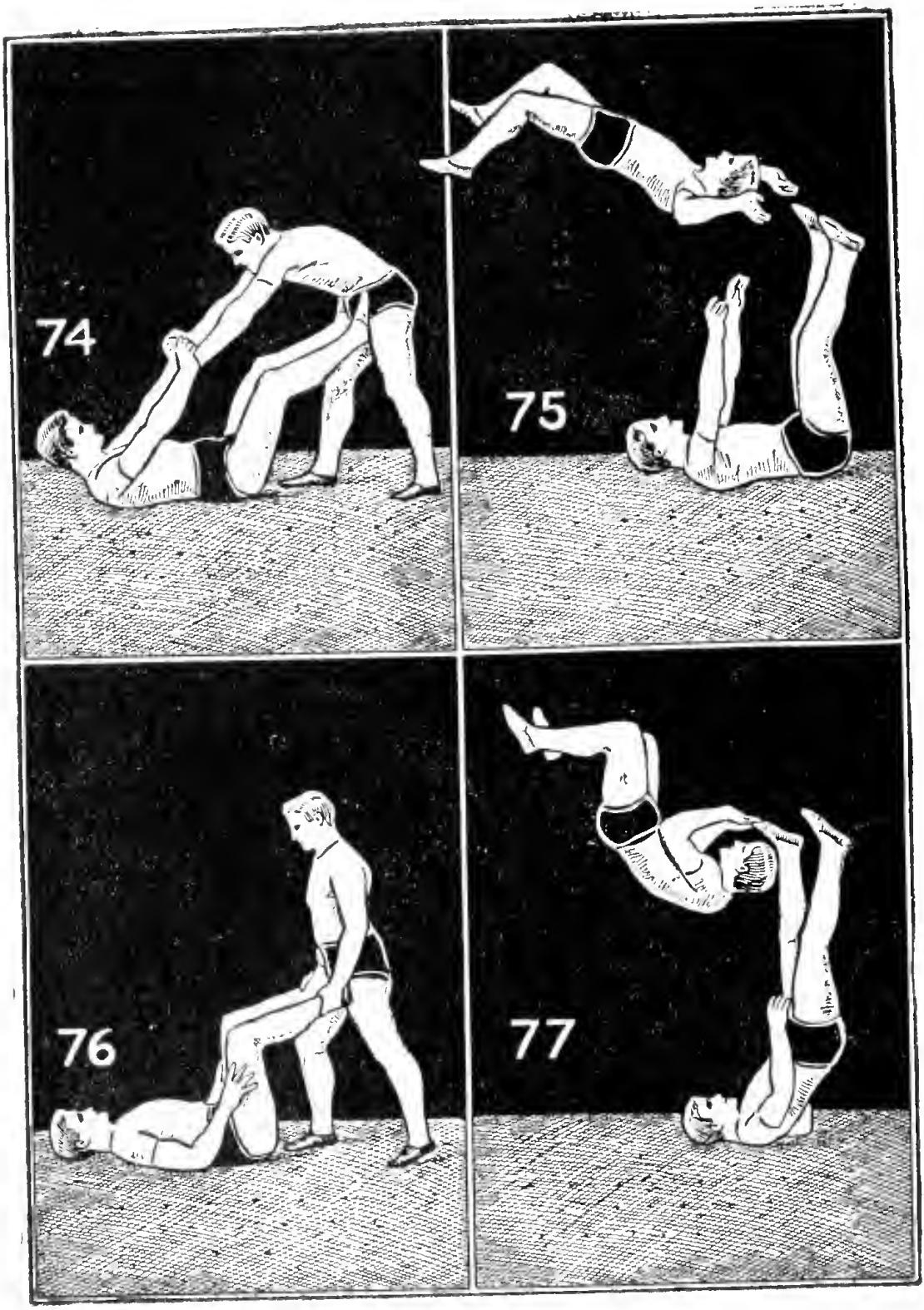
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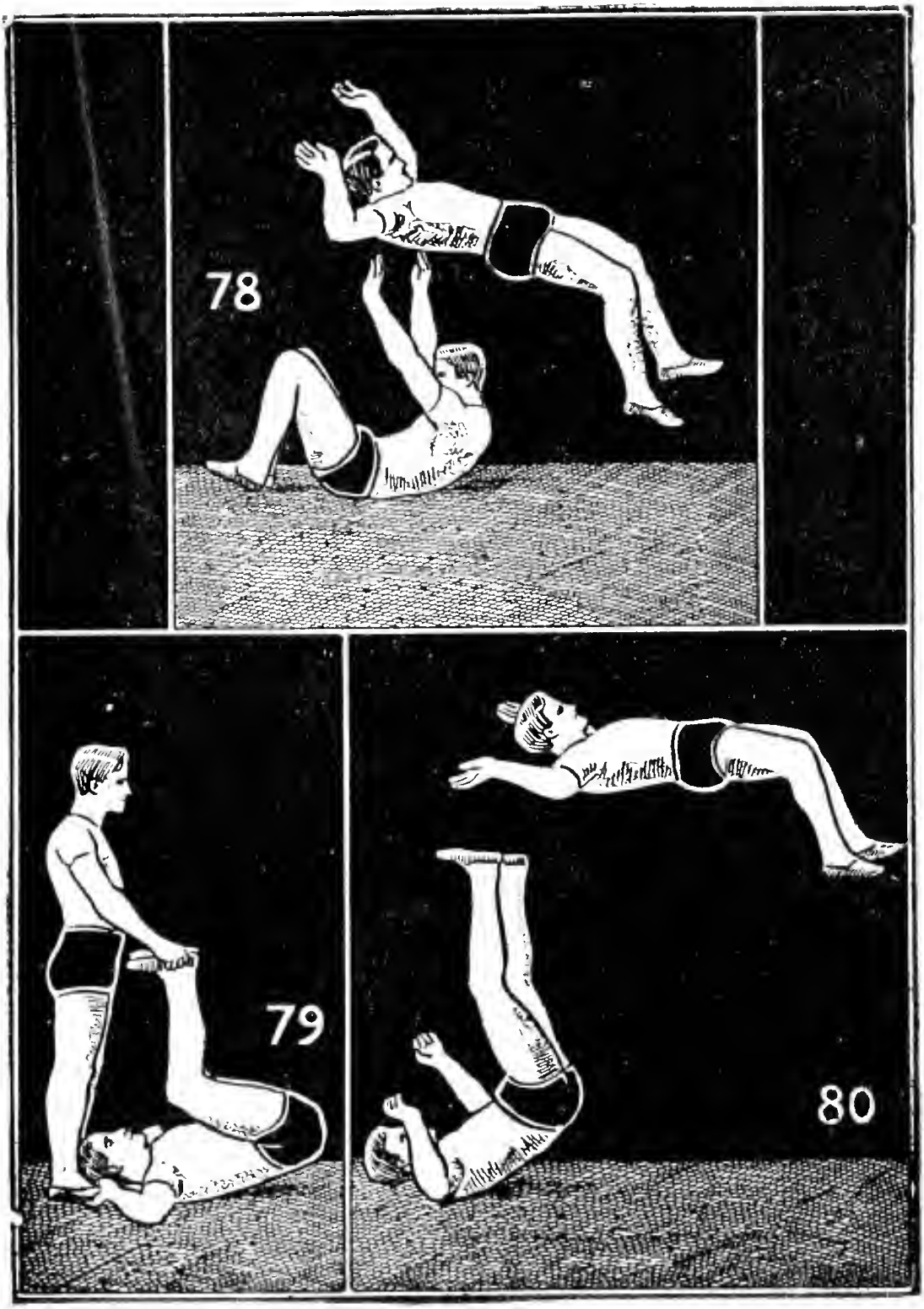
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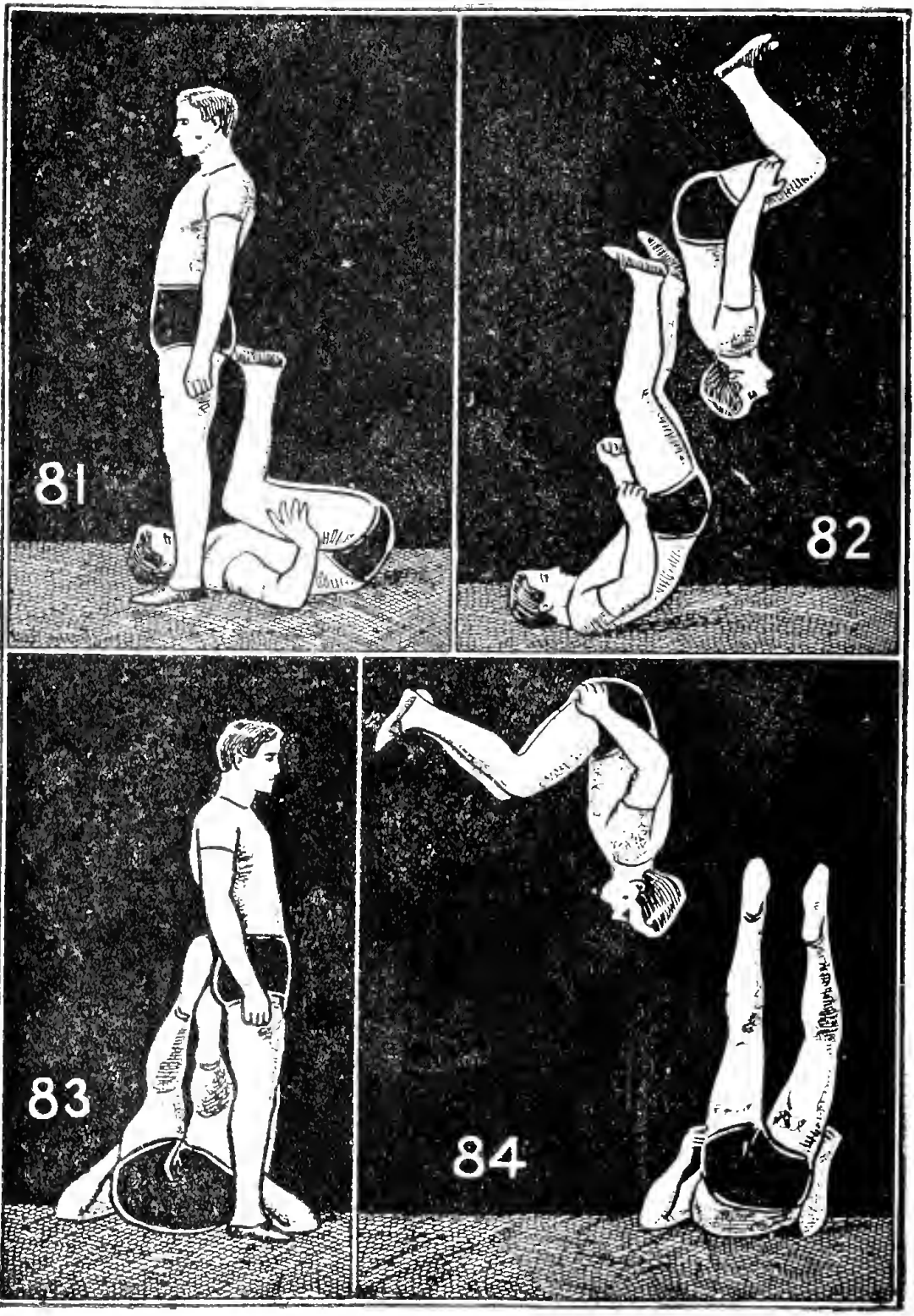
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HAND SPRING FROM FEET.

56. No. 2 grasps No. 1's ankles and places feet against his body, same as in No. 55; No. 2 shoves hard from ankles as he goes over, keeping arms stiff in last part of movement, No. 1 also holding his legs stiff in last part of movement. Figs. 76, 77.

HAND SPRING FROM KNEES OVER HANDS.

57. No. 2 runs and places hands on No. 1's knees and hand spring over, No. 1 shoving his shoulders, if necessary, as he goes over. Fig. 78.

HAND SPRING FROM HANDS OVER FEET.

58. No. 2 steps in No. 1's hands and grasps the bottoms of feet of No. 1, who holds legs stiff while No. 2 does hand spring over. Figs. 79, 80.

BACK OVER FEET.

59. Standing close to No. 1's shoulders, No. 2 sits on his feet, leans back, and No. 1 pushes up hard; No. 2 doubles up for regular back. Figs. 81, 82.

TWISTING BACK OVER FEET.

60. Same as No. 59, only No. 2 throws head quickly to right or left and alights with back to No. 1.

SIDE OVER FEET.

61. No. 2 stands by side of No. 1, and sits on feet. Rest of movement same as in No. 59. Figs. 83, 84.

PITCH BACK FROM FEET.

62. No. 2 sits on No. 1's feet and lays back; No. 1 kicks vigorously, No. 2 doing regular back movement, and landing away from No. 1 on same side from which he started, not turning over No. 1 at all. Figs. 85, 86.

BACK FROM FEET.

63. No. 2 jumps on No. 1's feet, gets a perfect balance, and does a back off.

MOUNT TO FEET AND BACK OFF.

64. No. 1 lies on back, feet up, hands on outside of thighs; No. 2 places right foot on No. 1's left thigh, and presses inside of knee against No. 1's foot to steady himself. He then places left foot on No. 1's left foot and, without touching hands, comes to an erect position, then back somersault off. Figs. 87, 88.

HAND SPRING FROM ELBOWS.

65. Facing each other, No. 1 places hands on knees, bending over so that elbows project above back; No. 2 runs, places hands on elbows, and hand spring over. Figs. 89, 90.

HAND SPRING FROM SHOULDERS.

66. Mount to shoulders as in No. 23, then hand spring off. Figs. 91, 92.

PULL THROUGH TO FEET.

67. Facing in same direction, No. 1 in front, No. 2 rolls to position on back, arms folded, and straightens knees so that his feet can be grasped by No. 1, who pulls him through quickly on to feet. Fig. 93.

MISCELLANEOUS

HAND SPRING OVER HEAD FROM HIPS.

68. Facing each other, No. 1 places head between No. 2's legs and, grasping his knees, straightens up, throwing No. 2 over his head, who assists movement by placing his hands on No. 1's hips and pushing off hard, elbows stiff. Fig. 94.

JUMP TO SHOULDERS IN FOUR JUMPS.

69. No. 1 does a hand stand and roll down; No. 2 stands over him, feet on either side of thighs. No. 2 jumps on No. 1's back thighs and immediately jumps straight up, No. 1 coming to hands and knees, and No. 2 lands on No. 1's back just above hips; No. 2 again jumps straight up, and No. 1 comes to feet with hands on knees; No. 2 jumps up again, No. 1 comes to an erect position, and No. 2 lands on shoulders. Lean and roll over.

WALK AROUND.

70. Complete jump to shoulders as in No. 69; No. 1 bends and places right knee and then left on mat, now crosses feet and sits down, straightening legs out in front, then lies down, still holding and steadying No. 2 by ankles, who retains his erect position by standing on front of No. 1's shoulders; No. 1 brings legs up, feet well apart, and No. 2 steps on his right or left hock and mashes it down; No. 1 turns head to right or left and continues back roll, coming to hands and knees; No. 2 steps up immediately on his back and does two jumps to shoulders (lean and roll over, or back or forward somersault off).

DOUBLE ROLL OVER BACK.

71. Get into position as in No. 2; No. 1 presses hard on heels of No. 2, who comes up quickly and continues movement by rolling on over No. 1's back. Figs. 95, 96.

HAND STAND AND DOUBLE OVER.

72. No. 2 does a hand stand, and his ankles are grasped by No. 1, who stoops over quickly and assists No. 2 in turning the front somersault after leaving his shoulders, by pushing

up hard on No. 2's ankles (called a double—the body only turns once and a half). Figs. 97, 98, 99.

TRIPLE ROLL.

73. Same as No. 4, only three men grasp each other's ankles and roll forward. Fig. 100.

BACK FROM THIGHS.

74. Facing each other, No. 1 squats, No. 2 placing hands on No. 1's shoulders; No. 2 jumps on his thighs, No. 1 catching him by calves; No. 2 does a back, assisted by No. 1 lifting and raising up. Fig. 101.

FRONT FROM THIGHS.

75. Facing in same direction, No. 1 stoops, and placing his head under No. 2's crotch lifts to shoulders, stoops and places No. 2's feet on his thighs (or No. 1 grasps No. 2's hands and lifts to thighs) and grasps his ankles; No. 2 straightens up and No. 1 pulls his head out, and as No. 2 jumps for his forward No. 1 assists by raising up and lifting hard with hands. Fig. 102.

THE BASKET.

76. From this position either a back or front somersault can be easily thrown. No. 1 grasps his left wrist with right hand; No. 2, same; each then grasps the other's right wrist with left hand, thus forming basket. Fig. 103.

KNEE THREE HIGH.

77. No. 2 lifts No. 3 on shoulders, No. 1 then lifts No. 2 (and No. 3), No. 3 straightens up and leans forward, No. 2 pulls head out and holds No. 3 in position by ankles, No. 2 now raises up slightly and leans forward and No. 1 pulls head out

and, straightening up, completes the knee three high. No. 3 jumps down and rolls over, followed by No. 2 and No. 1 in quick succession. Figs. 104, 105, 106.

KNEE THREE HIGH AND FRONTS OFF.

78. Build three high as in No. 77. No. 3 does a front off, then No. 2, and No. 1 does a standing front. Fig. 107.

STILL MOUNT.

(For Three High.)

79. (The object is for No. 2 to mount to shoulders without moving No. 1 from his tracks. This should first be practiced a number of times on the floor, and then on top of the horse or buck. When practicing a three high the top mount should always have around his waist a belt suspended from the ceiling the first few trials.) Facing each other and clasping hands, No. 1 pulls No. 2 (who jumps) on his feet, hands above head; No. 2 places left hand on top of No. 1's head, and clasps his right hand; No. 2 bends left leg and places his foot in No. 1's left hand; No. 1 pulls hard with right hand and lifts with left, No. 2 assisting himself by pressing hard on No. 1's head with left hand; No. 2 places right foot on No. 1's right shoulder and left foot on left shoulder, and comes to an erect position. Figs. 108, 109, 110.

THREE HIGH.

80. No. 2 mounts to No. 1's shoulders and grasps No. 3's hands (Fig. 111) and pulls him to top of No. 1's shoulders; No. 3 continues on up by still mount. Lean and fall. Fig. 112.

EXTRACTS FROM LETTERS OF PROMINENT PHYSICAL DIRECTORS

New Haven, Conn.

W. G. Anderson, Associate Director Yale University Gymnasium: "I believe in 'tumbling' as an exercise. It makes a man quick, agile, and very sure-footed. It is a form of sport that is popular and perfectly legitimate when properly taught. We have no good book on the subject, but need one. If such a work is to be presented to those interested in this subject, it ought to be written by a man who has had much experience in actual tumbling, who is familiar with the mechanism of the body, and who is educated. Dr. James T. Gwathmey, of Vanderbilt University, Nashville, Tenn., is just the person to compile a book on this form of gymnastics. He is a clever performer, a teacher of wide experience, and an educated physician. I have looked over the MS. of the Doctor's new book, and I indorse it."

McGill University, Montreal, Canada.

R. Tait McKenzie, M.D.: "I am glad to find some one ready and able to draw the veil from a branch of gymnastics which the professional acrobat has so long kept shrouded in mystery. The reducing of the various feats of tumbling to a progressive sequence, and the analyzing of the various combinations, is indeed a difficult task; but your kinetoscope method of illustration will make clear what would otherwise require pages of description. Your work can not but assist any one of ordinary ability in mastering the rudiments of the art; but it will also appeal to the much wider field of all who

admire acrobatics, and will give them some idea of the difficulties mastered by the professional, whose work they will more fully appreciate. I wish your book every success."

Ithaca, N. Y.

E. Hitchcock, Jr., M.D., Director of Department of Hygiene and Physical Training, Cornell University: "It has always seemed to me that this graphic method of instructing is the most useful, and I know that this subject in your hands will help enormously in instructing in a decidedly difficult branch of gymnastic work."

Amherst, Mass.

E. Hitchcock, M.D., Amherst College, Pratt Gymnasium: "In physical education, as in many other branches of mental and bodily training, there are some advanced branches which are adapted to the few and not the many. Acrobatic work is one of these. But it should be controlled, cultivated, and made good use of, like the other work, which may be undertaken by anybody. It is a pleasure to know that a manual on this subject is to be prepared and furnished for our use by one so capable to issue the book as is Dr. Gwathmey, of Vanderbilt University. We shall wait impatiently to get hold of it."

Amherst, Mass.

R. F. Nelligan, Instructor, Amherst College: "For sound men and boys tumbling is one of the best and most exhilarating of exercises, when practised under favorable conditions. Of course tumbling on a brick sidewalk differs from tumbling on a hair-stuffed mattress, with the aid of the safety appliances while learning. It has been said that one can not learn after reaching maturity. This is not so, as many first-class tumblers did not commence until after reaching twenty-five. At the age of thirty-two I was induced to take up tumbling under Dr. Gwathmey, and, with the aid of his safety ap-

pliances, succeeded in learning to do fairly well over fifty different movements and combinations."

Kansas City, Mo.

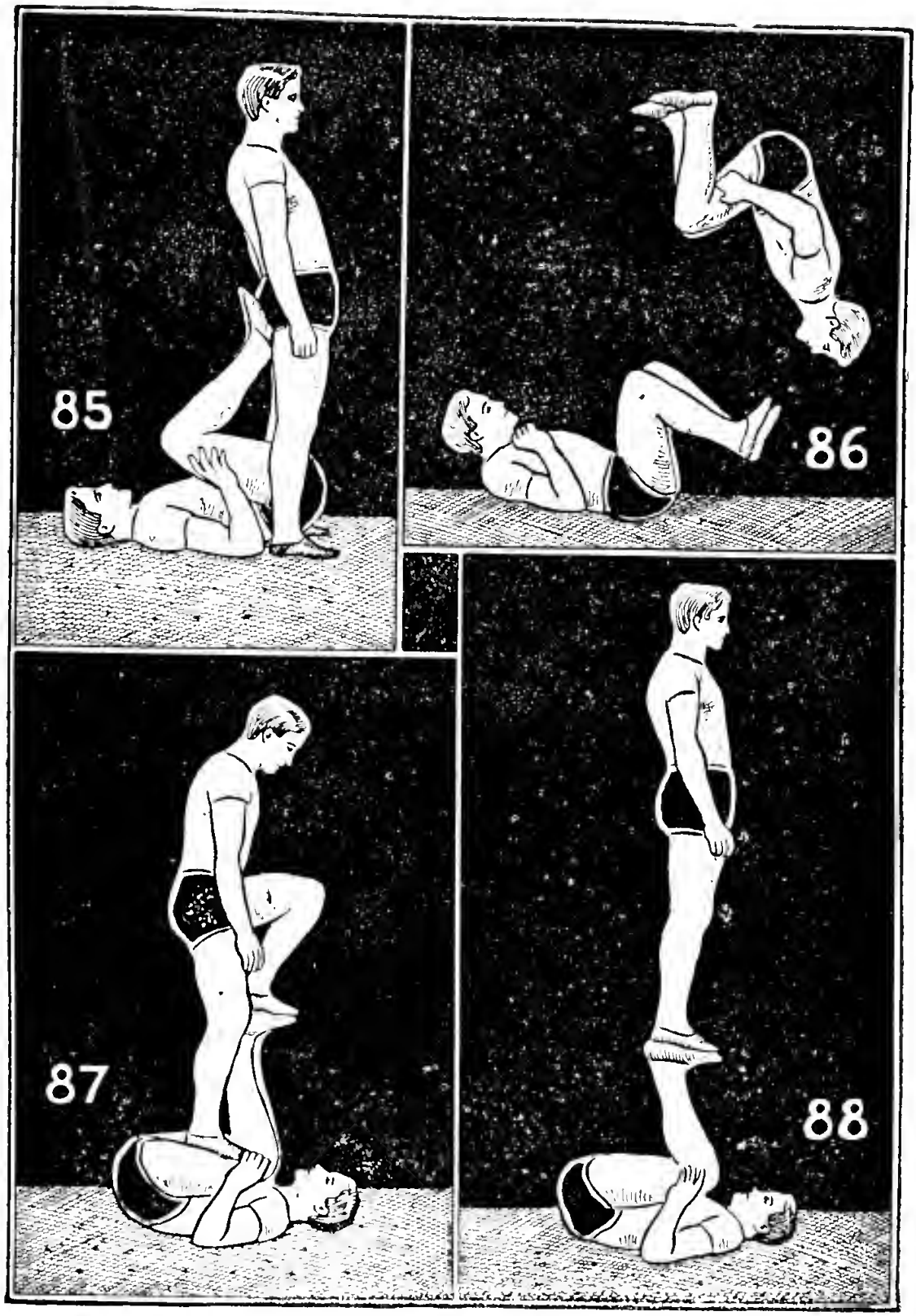
Carl Betz, Supervisor Music and Physical Training, Public Schools: "Your book, 'Tumbling for Amateurs,' which you have announced, will undoubtedly be hailed with delight by thousands of young American men who seek and find recreation in this particular kind of exercise. The photographs that will illuminate the pages of your book will be of intrinsic value to amateurs, who usually have no expert teacher to explain to them minutely each step of the exercise. If the element of danger in tumbling is greater than is consistent with the needs of physical education, as some claim it is, then your book, giving such minute instructions, and photographs of the body passing through the different stages of each exercise, cannot fail to reduce that danger to a degree which every interesting gymnastic exercise must contain. I therefore cheerfully recommend your interesting and timely little book to all who may wish to learn and practice the delightful pastime of tumbling."

St. Louis, Mo.

William A. Stecher, Secretary Technical Committee, Nord Amerikanischer Turnerbund: "I think that your undertaking is a very commendable one; for I believe that the greater the control a person has over his body—and tumbling undoubtedly increases this—the better off he is. I wish you all success."

Milwaukee, Wis.

Frank Pfister, M.D., Editor Mind and Body: "Received your favor of the 7th inst., and congratulate you upon the idea of publishing a manual on tumbling, for nothing recommendable exists in that line."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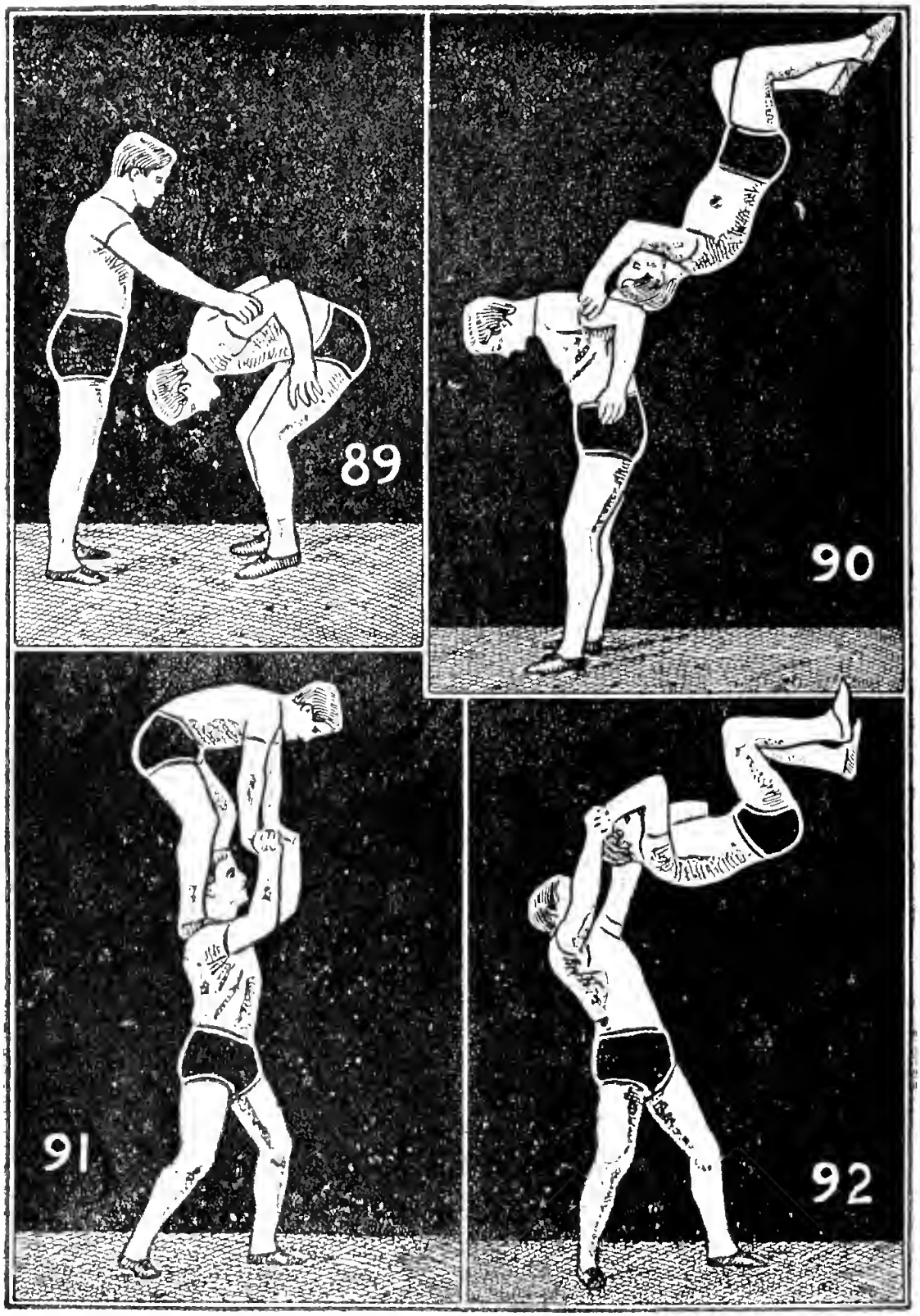
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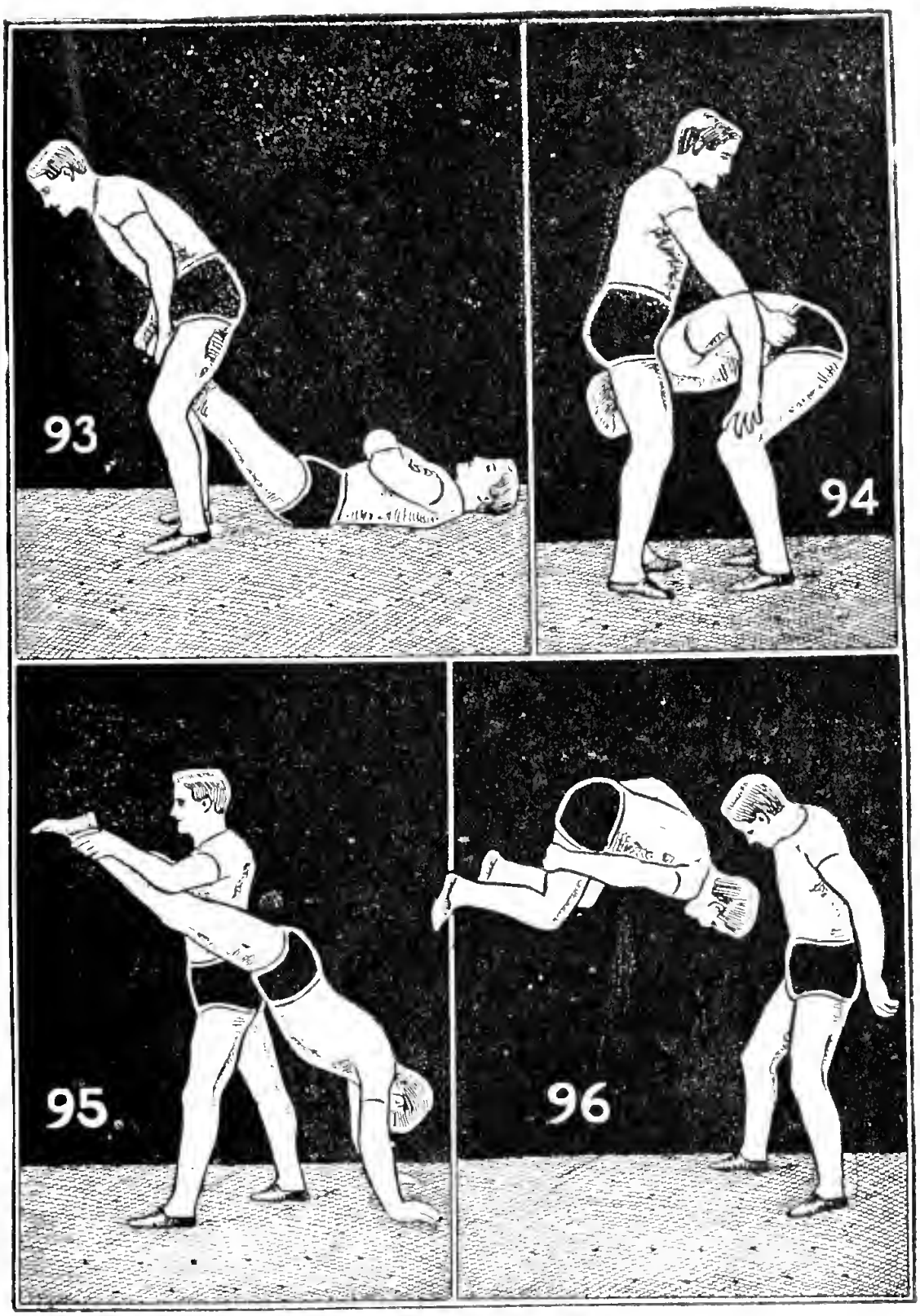
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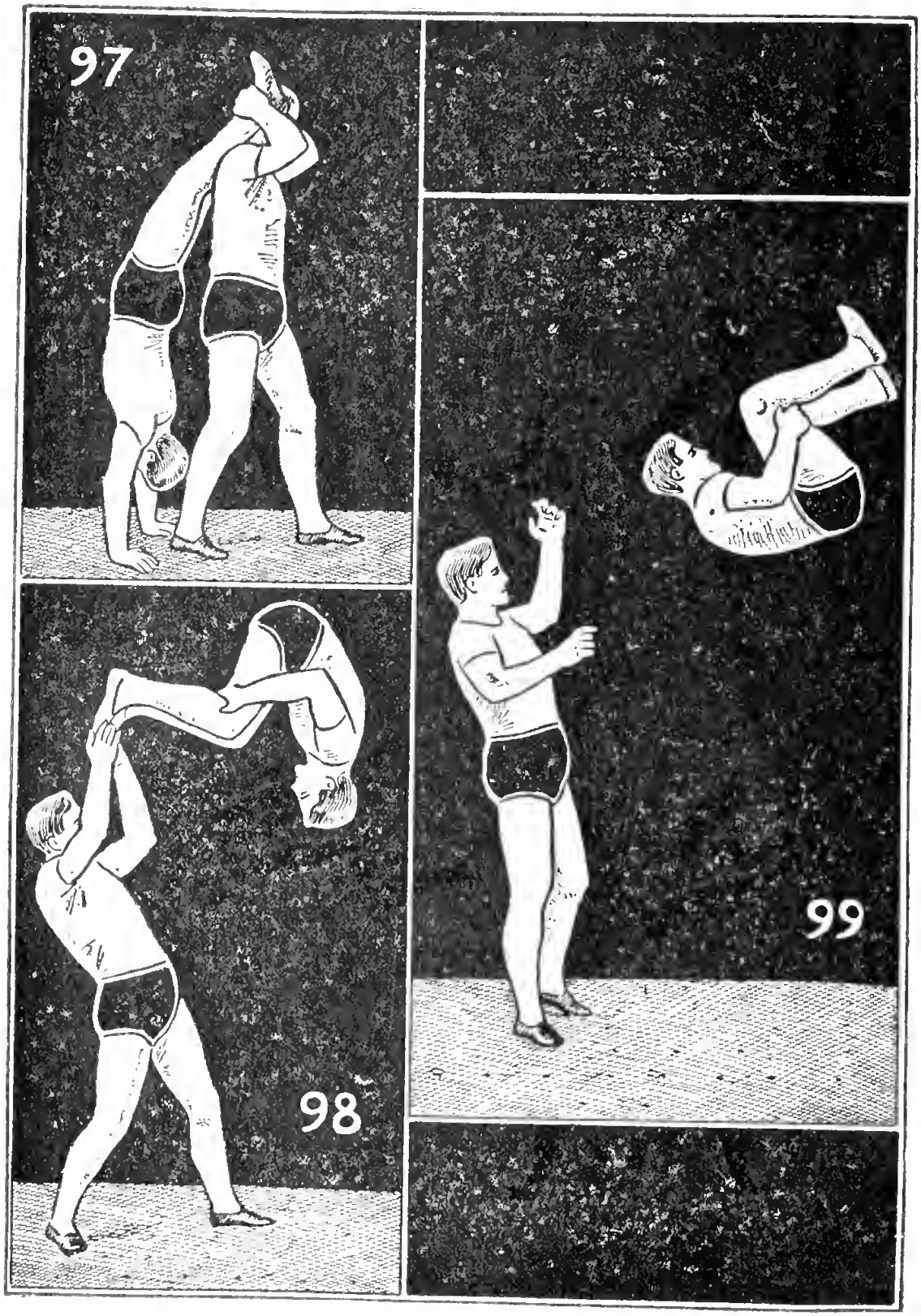
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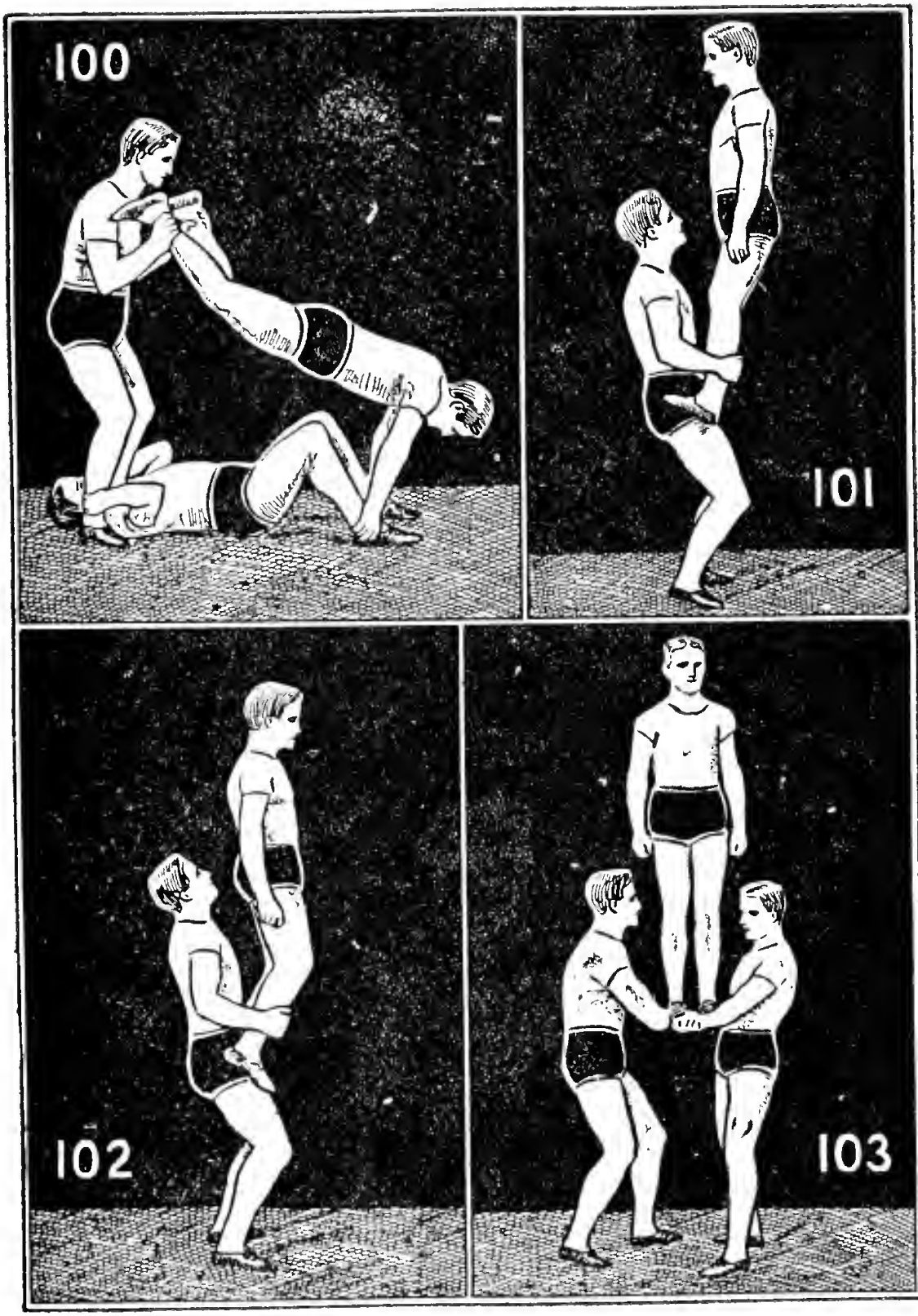
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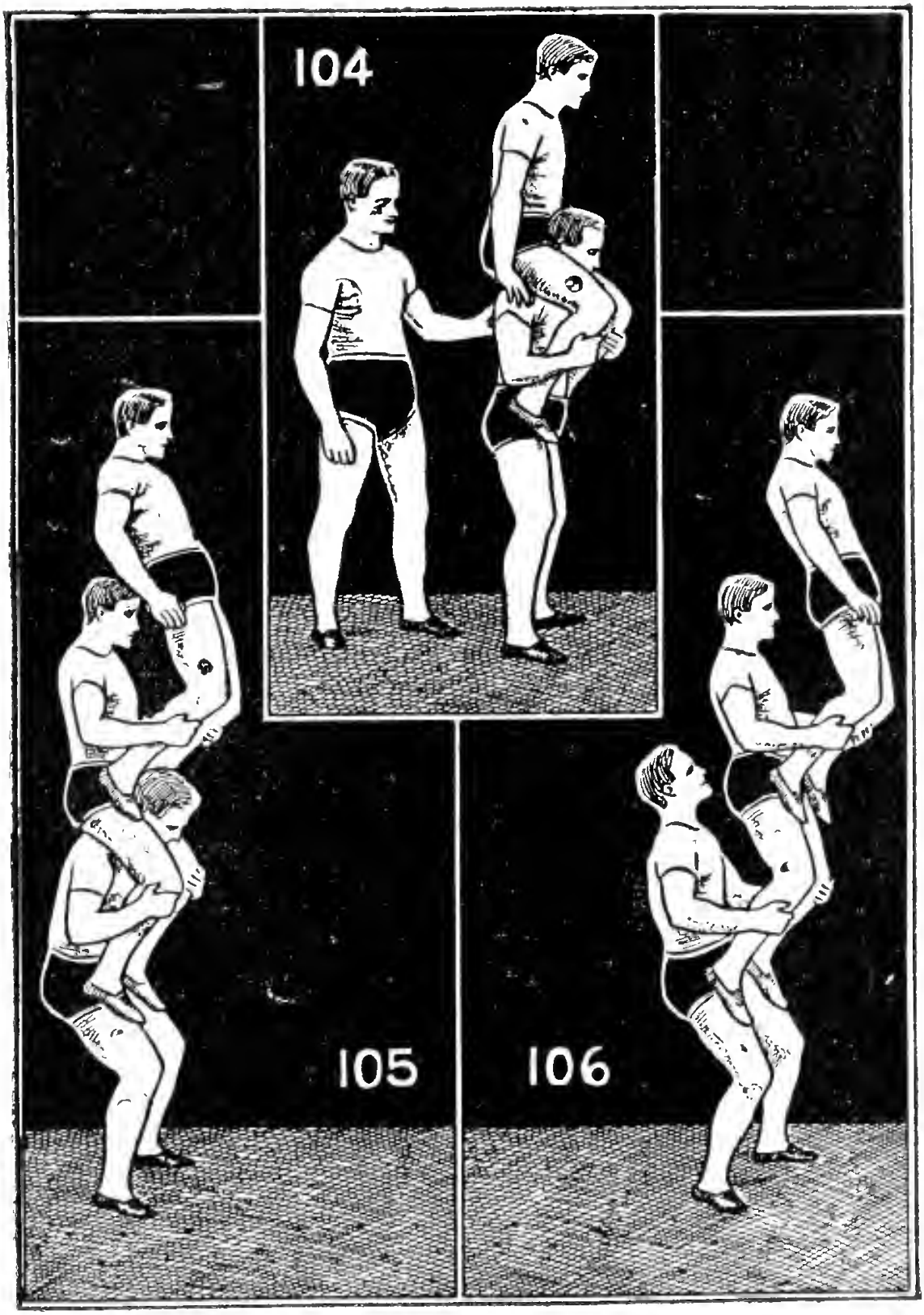
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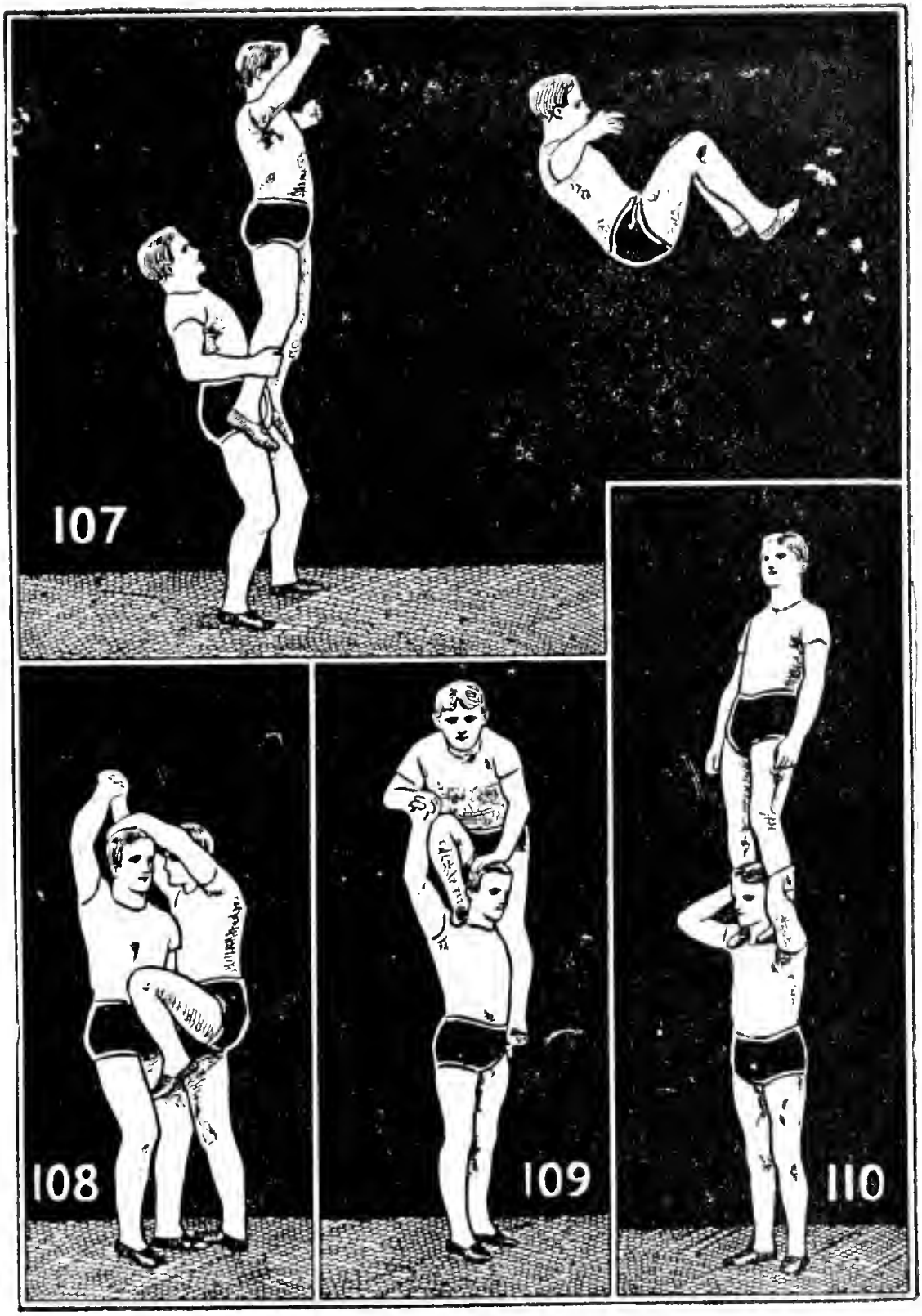
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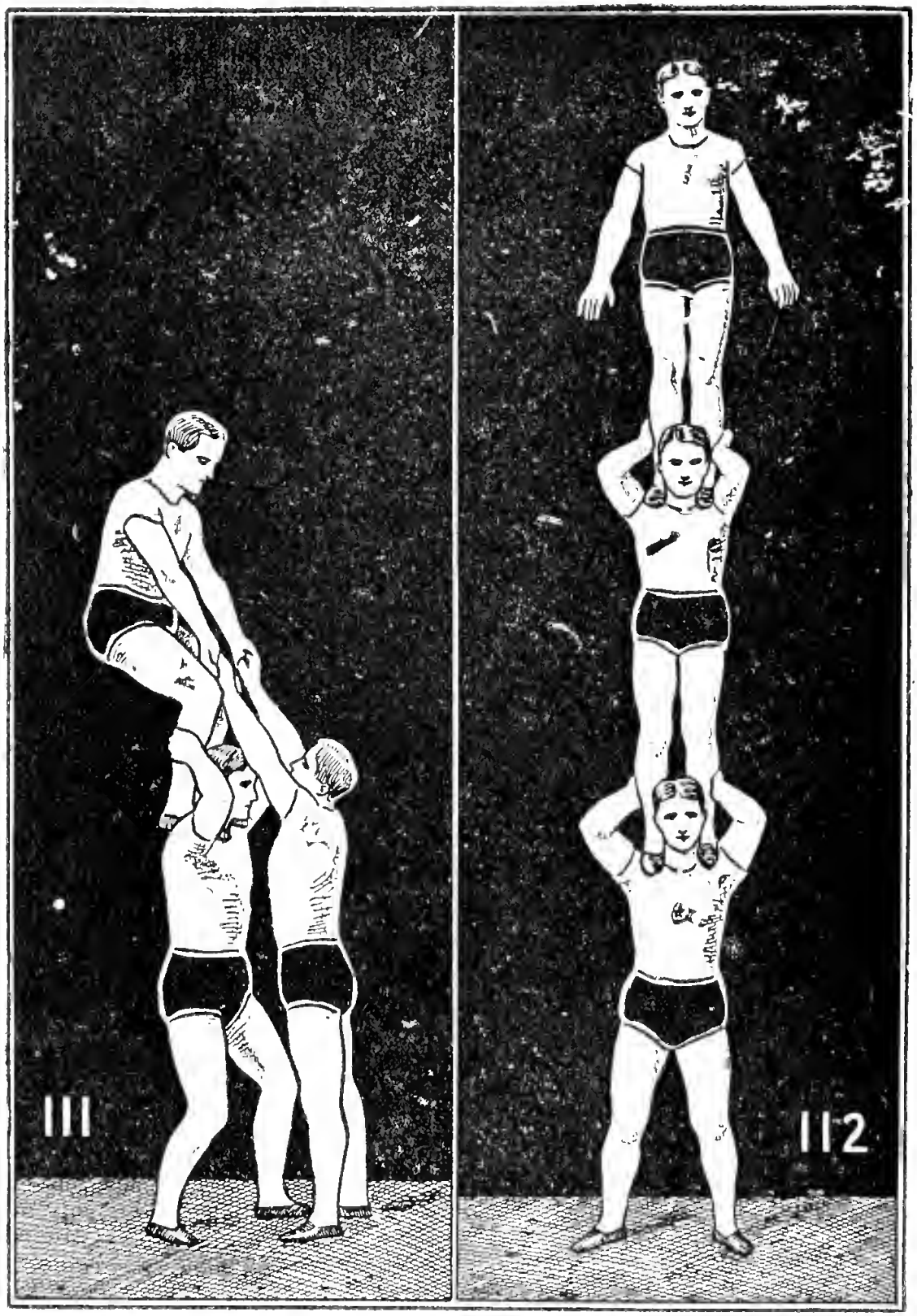
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Springfield, Mass.

Luther Gulick, M.D. ("History of Physical Training"), International Y. M. C. A. Training-School: "Your letter of the 7th is at hand, with the excellent cuts that were inclosed. You ought not to charge less than one dollar for the book. I do not know but what you could get more. I shall be very glad to purchase a copy of the book as soon as it is published. Please let me know."

Chicago, Ill.

G. W. Ehler, Physical Director of the Y. M. C. A. of Chicago, Central Department: "There is a necessity for a good book on tumbling, as there is none now in print to my knowledge; and I believe that such a book would meet with a very hearty reception by physical directors and by others who are interested."

Boston, Mass.

Robert J. Roberts: "I approve of your idea of getting out such a book as you speak of. I would keep out the dangerous exercises; or, if you put them in, hedge them in so that amateurs will not use them. There is no kind of physical work that will so harmoniously develop every part of the body as tumbling."

SPALDING'S ATHLETIC LIBRARY

Ground Tumbling

BY

HENRY WALTER WORTH

Formerly Physical Director of Armour Institute of Technology
Chicago

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INTRODUCTION

Oh, do you remember, how, when a small boy in the country, in the months of April, May, June, July, August and September (it mattered little what time of the year it was, just so the ice was out of the water), you used to run to the river at a "twelve-second gait," make two simple twists of the wrist, thereby removing a waist and pair of trousers, and plunge into the water with speed equalled only by the rapidity with which you say your prayers on a cold night? Of course you do. Great fun, was it not? I used to think there was nothing like it. I could not get into the water quick enough. That was before I learned to turn the "back" and the "flip," however.

After I learned to turn the back and forward somersault, when I was about eleven years old, I would linger on the bank, or soft sandy beach, "tumbling," until I saw the other boys coming out to dress, then I would dive in, swim a few strokes, just to say I had been in swimming, come out and dress with the rest.

Like the proverbial "Wandering Willie," the

water lost much of its charm for me after I found what royal fun the turning and twisting on the bank afforded. I have wondered many times if the Almighty, when He created beaches like Manhattan, Rockaway and Nantasket, making them slope gently down to the water, and put the soft, but not too soft, yieiding sand there, if He did not think how admirable they would be to "tumble" on.

Any one who has experienced the pleasure of a few "backs," "flips," "snap-ups," etc., on the soft sand, immediately after donning the light bathing suit, will agree with me that it is "great fun." And he who has never been taught, never practiced any acrobatic work, I hope will begin "easy" at first; a few simple feats and practice carefully every opportunity he has.

I am sure whoever takes an interest, tries, and advances as far as the "round-off," "flip" and "back," will feel fully repaid for all the time passed in learning. He will find so many opportunities of performing, and it will be a means of great pleasure to himself, if not to his friends.

Many of the acts can be performed in the parlor or in a very small space. However, they should never be *practiced* in the parlor.

Now a few words upon the benefits, physical

and mental, derived from practicing tumbling.

An expert tumbler has an everlasting faculty of always landing on his feet. If thrown from a horse, street car or carriage, like a cat that is dropped from a window, and the man who strikes a match on the sole of his boot, he always lights on his feet. There is a sort of wriggle or twist that a man who has practiced tumbling long can make in the air that will invariably bring him down feet first.

The mental benefit is derived from the pleasure found in practicing, as all recreation is a mental benefit. I feel that all I could preach, say or sing about the benefit of any certain exercise would be feeble indeed. Boys and young men—and they are the ones who will probably be most interested in this book—are not appealed to by advice on "what they ought to do." They will never practice any of the feats described in this book for the good it will do them. They know that plenty of sleep is good for them, and they know that tobacco is bad for them; but it makes no difference.

This book is intended more for the boy who wishes to learn but does not know just where and how to begin. What we all need in this world is encouragement. I should like to encourage every

boy who wishes to learn. Don't be discouraged because it takes you so long to learn the handspring; when that is once learned, the other acts will be easier.

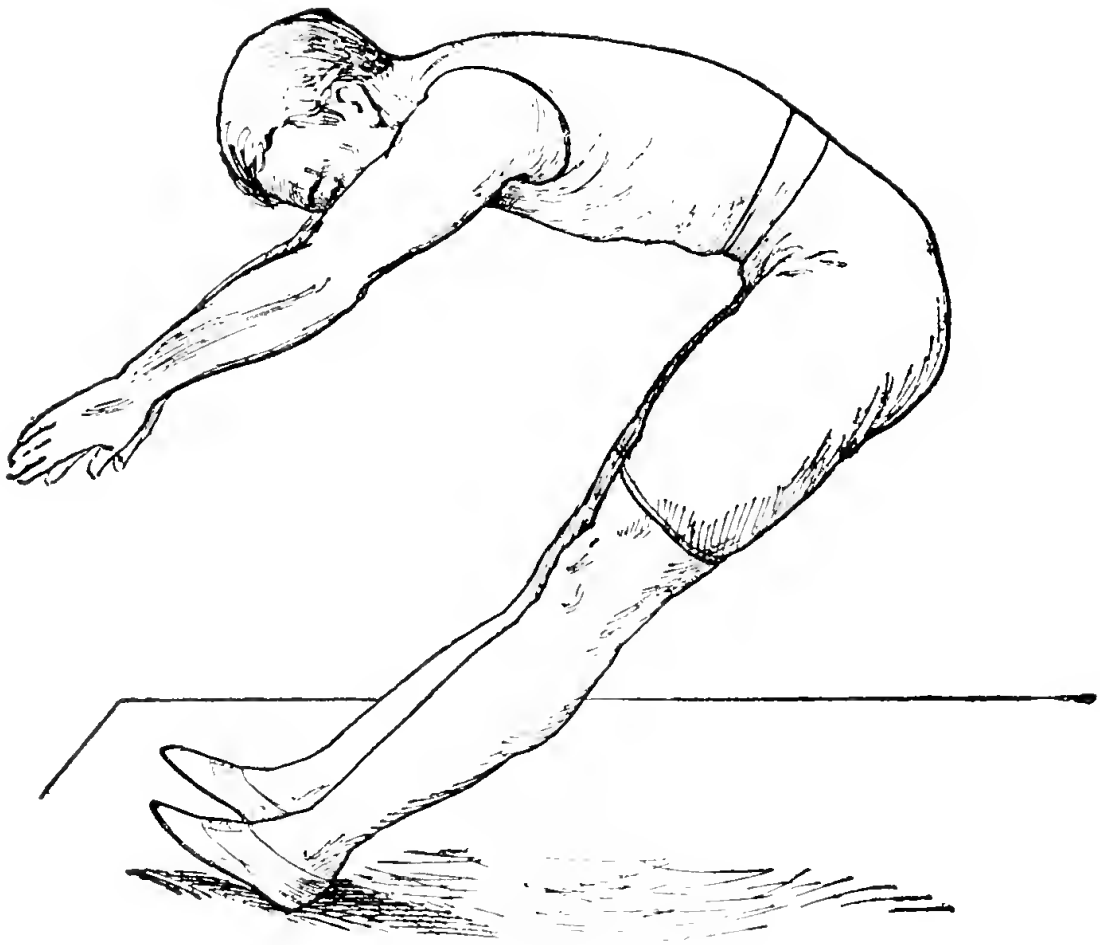
Do you remember the comparative lines used by a baking powder company in advertising their baking powder? There was the long line reaching nearly across the page, representing this firm's powder, "Absolutely Pure." Then there was the next line, not as long, representing some other firm's powder—not as long a line, and not so pure a powder. Then there were other lines along down the list, shorter and shorter, until the last, which was only about an eighth of an inch long. Now, I think these lines might serve as an excellent illustration of the length of time it will require one to learn the different feats. Let the long line represent the length of time it takes to acquire the first trick; the practice for the first trick will help you with the second, the second with the third, and so on, so that when you have practiced and learned many feats the time required to learn each will grow shorter and shorter, although the acts grow harder.

This rule will apply to all athletic and gymnastic work as well as to tumbling.

To boys who are apt to get discouraged I love to tell of a boy I knew in Chicago. He was far below the average in natural ability when I first knew him—awkward and clumsy—but he became interested in gymnastic work and kept "everlastingly at it." He fairly lived in the gymnasium. As a result of this faithful labor, in less than three months' time he participated in a gymnastic exhibition, turning a forward somersault through a blazing hoop.

Practice, don't be discouraged! You will probably never become as great an acrobat as one of the Nelson Brothers, but you will certainly find great pleasure and accomplish some good results by Ground Tumbling.

THE AUTHOR.



No. 2. The Sitdown.

DIRECTIONS

1. The Switch.

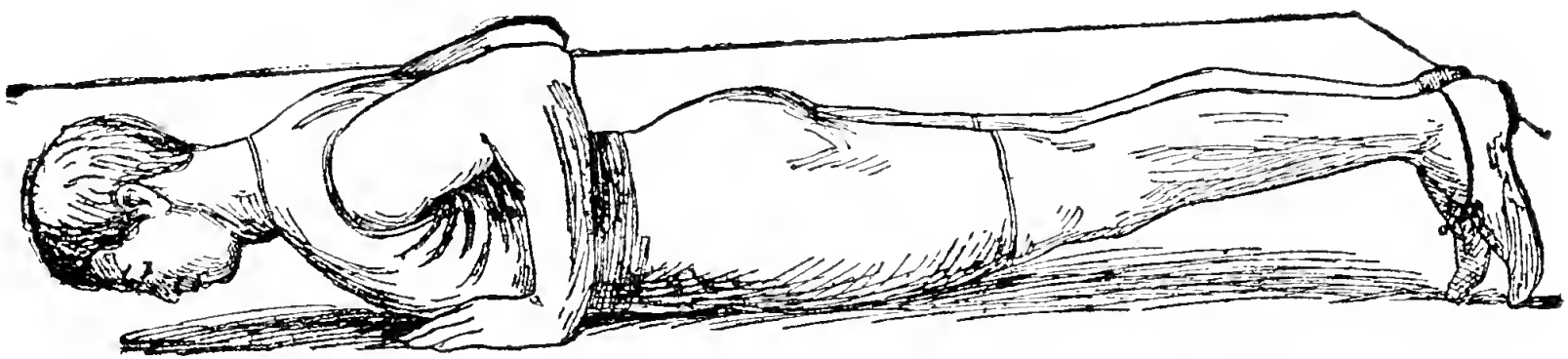
This is an act which is easily performed and affords much amusement for spectators. Stand in an erect position with hands hanging at sides, spring up a foot-and-a-half from the ground and give a quick jerk or switch with the body and come down facing in the opposite direction. Do not jump around. The turn is made by a twist of the body, not with the feet or legs.

2. The Sit Down,

Stand with the feet about one foot apart, bend over, keeping the legs perfectly straight, until the finger tips nearly touch the toes, then fall back to a sitting position on the floor. Do not bend the knees. If performed correctly this can be done on a very hard floor without hurting the performer in the least. (See illustration.)

3. The Back Roll.

Performed the same as No. 2, only instead of stopping at the sitting position the performer rolls



No. 4. The Fish Flop.

back on the shoulders and head, and with the use of the hands comes to a standing position on feet.

4. The Fish Flop.

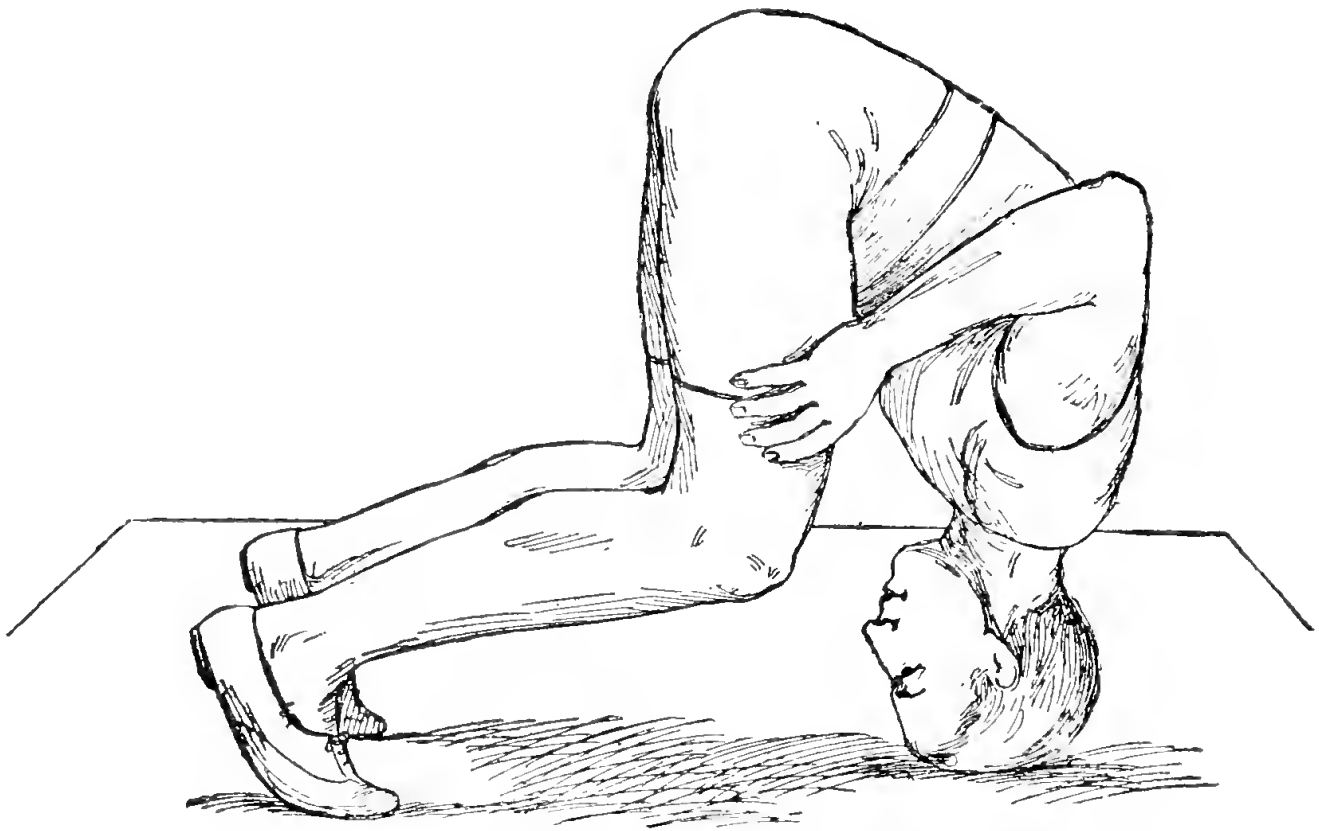
Lie on stomach, feet close together with the toes touching the floor. Place hands on sides, near ribs, flop over onto back with help of hands and feet, keeping the body perfectly rigid. (See illustration.)

5. The Front Roll.

Stand with heels close together, toes turned out. Bend over, place hands on floor about one foot apart and about a foot-and-a-half in front of feet, bend head in toward body and touch the back of head on floor between hands and, with a push from the feet, roll over on back and up onto feet again. "Curl up" in doing this act. Bring feet well under body.

6. The Cart Wheel.

Stand erect, throw left hand hard down on the floor, about two feet from the left foot, follow with the right hand, two feet from the left hand, then the right foot down about two feet from the right hand, and so on. The feet and hands should be placed as nearly on a straight line as possible.



No. 10. The Headspring.

Arms and legs moving like the spokes in a wheel, hence the name.

7. The Round-off.

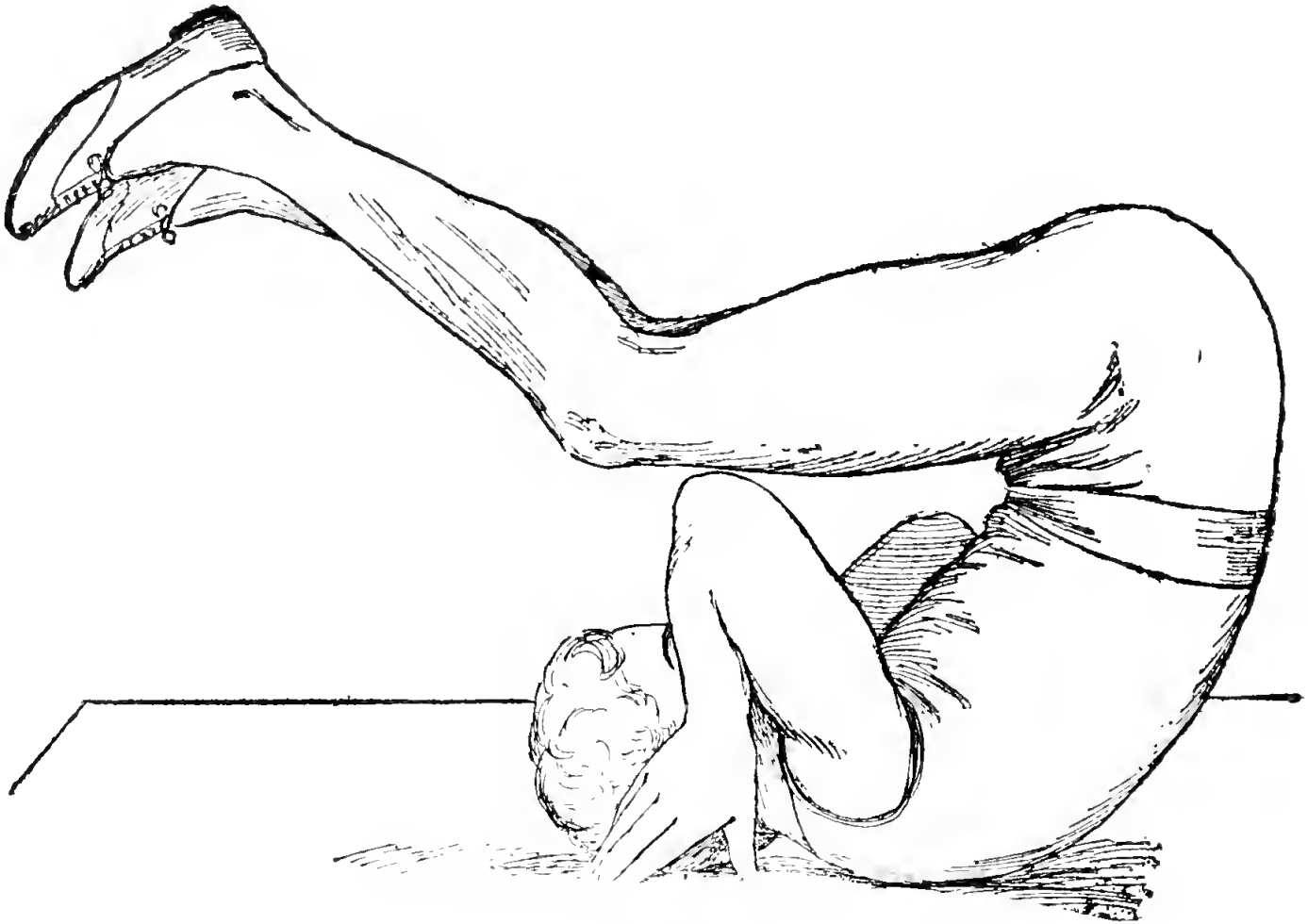
This may be done with either running or standing start. Strike hands on ground in front of feet, letting the left strike a little before the right, as in the cart-wheel. Place them about ten inches apart, at the same time swing the body over and around, so as to land in a sitting position directly opposite the one in starting.

8. The Handspring.

Possibly the most common acrobatic feat. May be done from running or standing start; strike hands hard on the ground, turn head under and in, throw feet over head and as they begin to come down give a hard spring or push up with the hands, curling feet down and back under body and coming to standing position, facing the same way as when starting.

9. The One-hand Handspring.

Same as No. 8, except that but one hand is used. The weight of the body should be brought well over the hand used.



No. 11. The Snap Up.

10. The Headspring.

Instructions same as for No. 8, only the spring is made from the head instead of the hands. (See illustration.)

11. The Snap Up.

Lie on back, carry feet up and back over head so that the toes nearly touch the ground, bearing the weight on the back of head, neck and shoulders. The hands should be placed on the ground near shoulders and neck. Give a quick hard whip with the feet and legs over toward first position and a hard snap or push up with the neck, shoulders and hands. With a little practice it can be done without the aid of the hands. It is a pretty act and a good "finish" to every act ending with a fall on the back. (See illustration.)

12. The Elephant Walk.

A comical contortion act. Place hands on floor in front of feet as near to toes as possible. Do not bend the knees. Walk.

13. The Long Dive or Lion's Leap.

This is a long dive made on the mats or some soft place, much as one dives into the water. Take a short run, strike both feet at the same time

on a spot about five feet from the mat, make a dive toward the centre of the mat striking first the hands, then the head (which should be well turned down and under), allowing the force of the dive to be about equally divided between the hands, neck, head and shoulders. Curl up well as in No. 5.

14. The Hop Over Hand and Foot.

Grasp left foot with right hand, with thumb of right hand under great toe joint; fingers of right hand over top of toes with backs of fingers up. Jump over hand and foot with right foot. The point to be observed in performing this trick is to keep the right hand and left foot perfectly still while jumping with the right. If moved, they are apt to trip the foot when jumping. This is excellent practice in developing quickness in handling the feet, which is an important factor in tumbling.

15. The Hop Back.

Jump back to original position from finish of No. 14. Try the same trick with both feet over and back.

16. The Jump Over Stick in Hands.

Practice this with a cane or rattan that can be bent down while jumping over. Grasp stick with

ordinary grasp, hands placed as far apart as the width of shoulders. Jump over stick between hands, keeping stick in hands. Jump back.

17. The Jump Over Hat.

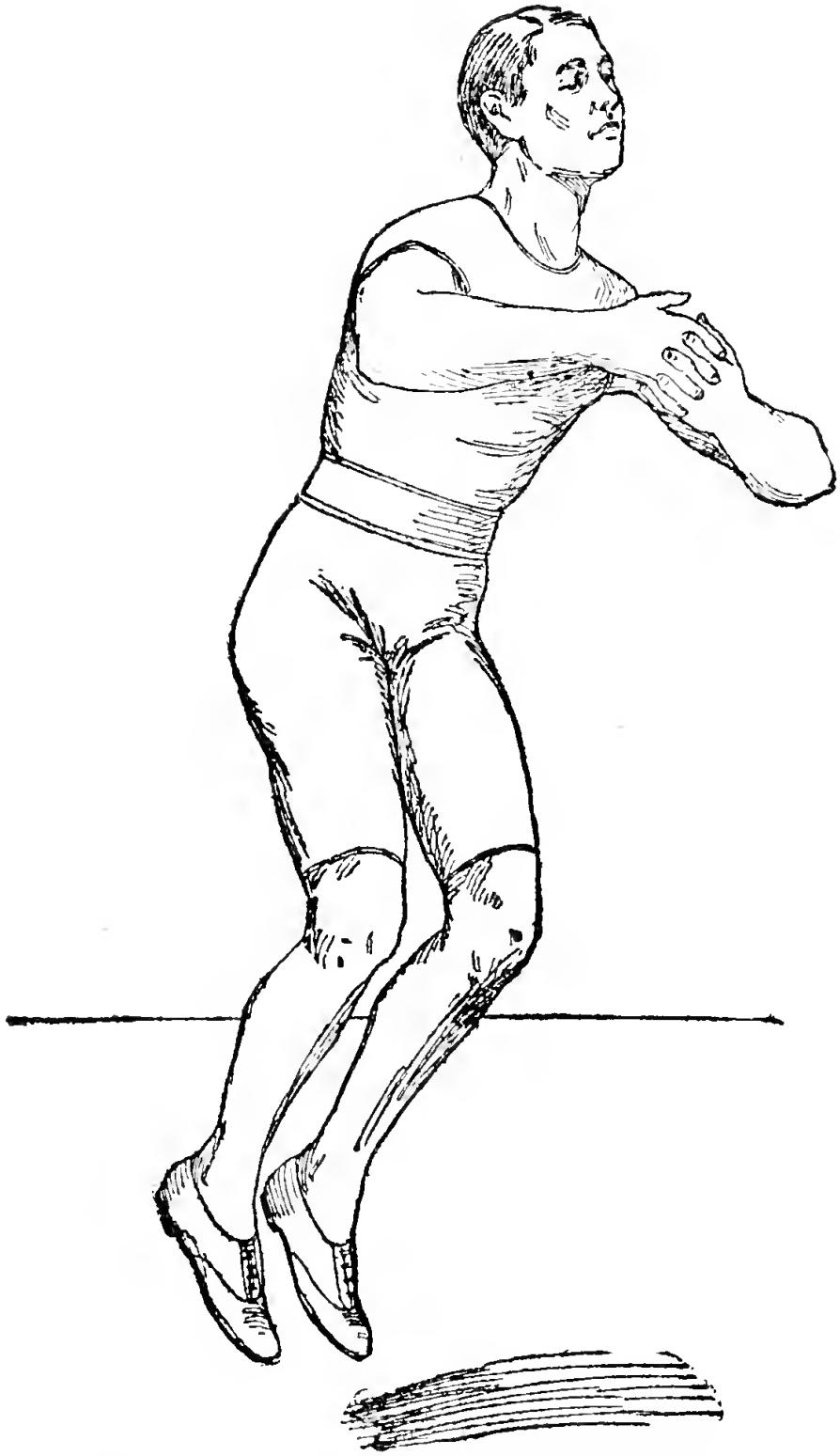
Same as No. 16, except jump is made over hat held in hands.

18. The Jump Over Razor-Blade.

This should never be practiced until the performer can successfully jump over short lead pencil held in hands. It is a "stage trick" that takes well and usually makes a hit. It should be done with a razor-blade so dull that if struck with the feet it would do no harm. Hold the blade of the razor in the hands so loosely that if tripped upon by toes it would easily slip from hands without injury.

19. The Jump Over Hands.

This is one of the prettiest and most difficult acts that is performed. Entwine the fingers together and jump through the arms and over the hands. It may take months of practice to get this feat, but, when once learned, the legs will be so supple and quick that nearly all other acrobatic feats will come easier in consequence. (See illlustration.)



No. 19. The Jump Over Hands.

20. The Twist Handspring.

Performed the same as No. 8, only, after touching the hands, the body gives a quick turn or twist to the right or left so as to finish the act facing in position used in starting.

21. The Twist Snap-Up,

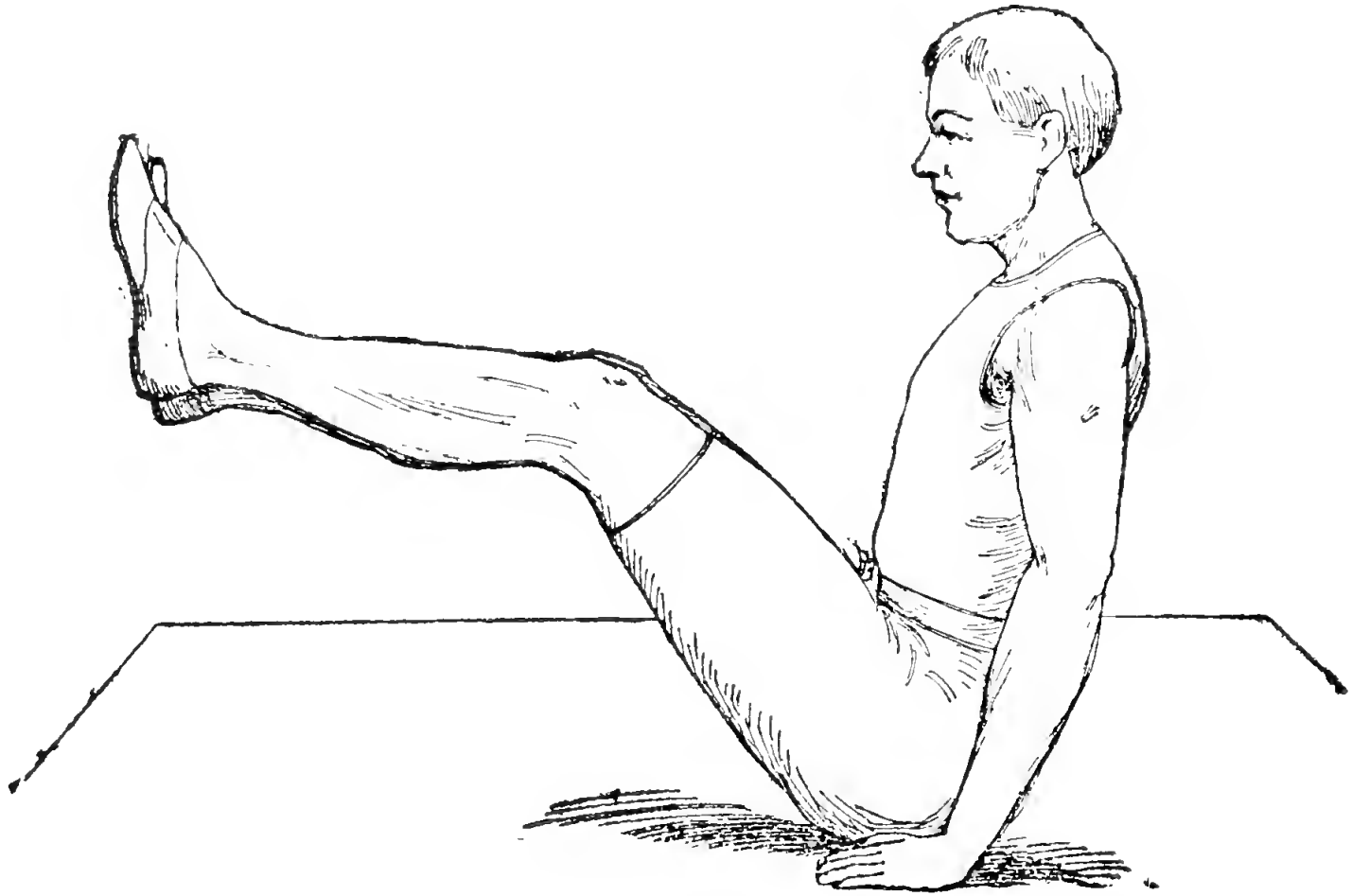
Same as No. 11, only the body gives a quick turn or twist to the right or left after the shoulders leave the ground so that the finish is made opposite the position taken in starting.

22. The Cradle.

First do the snap-up, No. 11, and immediately after landing fall back onto the shoulders, neck, head and hands as in the snap-up, then snap back to feet and continue to rock back and forth.

23. The Kicking Jackass.

Stand with heels close together, jump onto hands, with the feet carried well back and the back arched. Then spring (not fall) back to the feet from the hands and continue the movement. Be sure that the feet leave and strike the ground together, also the hands. Do not "crow-hop," that is, don't strike first one foot and then the other, a sort of "ker-flap," "pit-pat" sound.



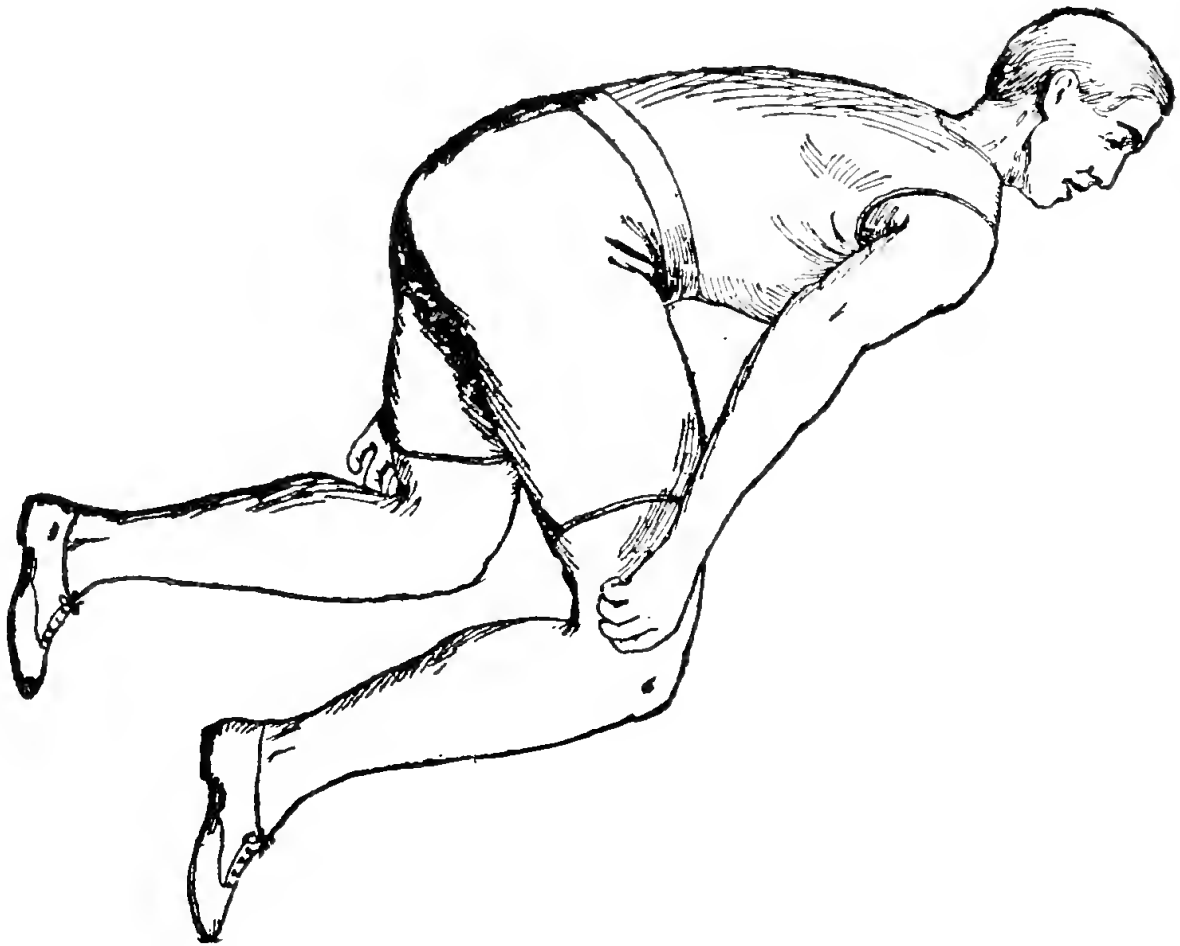
No. 24. The Curl.

24. The Curl.

Stand erect, fall slowly forward on the hands, keeping the body perfectly straight. Break the force of the fall by letting the arms bend slightly, but straighten them immediately. Curl up, bringing the knees well up toward the chin and carry the feet through between the hands, not letting them touch the floor; extend legs in front of arms, curl up again, carry feet back through hands and straighten into the "handstand." This is a difficult feat, but it may be practiced with perfect safety. It is excellent practice for developing the muscles of the stomach and abdomen. (See illustration.)

25. Running Forward Somersault.

Take a quick run of about twenty yards, strike both feet together on the mat or floor. Jump well into the air, duck the head down and in, and try to describe a half circle through the air, with the feet landing in a position, the same direction as when starting. It is well to practice this over a very soft place, having a board or some hard object to turn from and land into hay, shavings, soft sand, sawdust or tan-bark. When one has a soft place on which to practice he should go at it boldly; he



No. 25. Running Forward Somersault.

will then be less apt to jar himself. A quick hard run is the important thing, and a leap of about five feet should be made before striking the take-off. (See illustration.)

26. The Back Somersault.

This is done from a standing position. Get two men to hold you up while trying. The "lungers" that are generally used in the gymnasium—"coward-strap" they are called—may be used with perfect safety. However, I think the best kind of strap is a long strong towel.

Stand firmly with the heels about four inches apart, spring up as high as possible, throw the head back and down and try to describe a half circle with the feet landing in a position facing the same way as when starting. This should be performed with a "cut," that is when the feet get well over the head catch the legs back of the knees and pull them down under the body. The way of using the hands in performing the back somersault will gradually come to the performer with practice.

27. The Flip.

Sometimes called "Back Handspring." Should be practiced over a moderately soft place. Stand

with the back to the mat. Sink down so that knees come within a foot of the floor in front of feet. Throw the hands and head back. Strike hands on floor, about six inches apart, in a position such as is held while walking on hands. Do not let the head touch the ground. Then throw the feet up over the head and hands, describing a half circle, finishing facing the same way as when starting. Use the stomach and abdomen muscles when performing this act. Do not let the feet leave the ground until the hands are firmly placed.

28. The Twister.

This is No. 26, the back somersault, with a half turn to the right or left, so that the finish is made facing in an opposite position from the position in starting. It is well in practising this act to try and turn just a little at first, then an inch further, and so on until the complete half turn is made.

29. The Twist Flip.

Same as No. 27, the "flip," only a half turn is made from the hands so as to finish facing in an opposite direction from that taken when starting.

30. The Spotter.

This is the back somersault turned in such a way as to finish with the feet in the same spot they were when starting. It is best acquired by trying to make each finish nearer and nearer to the starting position.

31. The Gainer.

Same as No. 30, except that the finish is made with the feet striking in front of the starting position.

32. The Tuck-up.

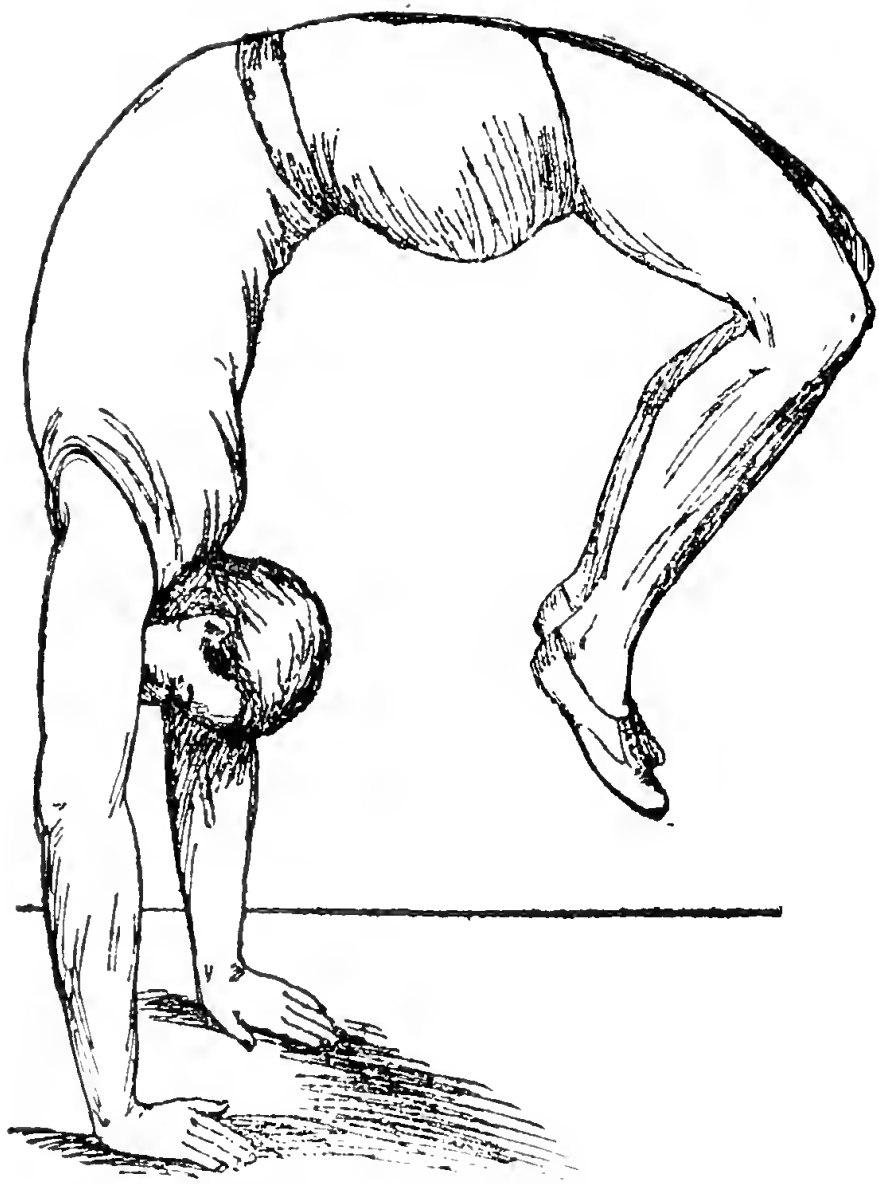
This is a high back somersault performed without the "cut." It is usually done as a finish to a succession of "flips."

33. The Standing Forward.

This is the forward somersault performed without a run. To do this one must jump high into the air, turning as he would in the running forward and "cut" by catching the legs in front, just above the ankles, and drawing them under the ankles. It is a difficult act.

34. The Half Forward.

The first part of this act is performed as in No. 25, only, instead of having the feet describe a



No. 35. The Half Back.

circle over the head, they stop in the air above head, and the landing is made on the hands. It is, in fact, a sort of jump or dive on the hands and stand there.

35. The Half Back.

Like No. 26, only the finish is made onto the hands and the body balanced there. Instead of turning all the way around, jump back onto the hands and stand there. (See illustration.)

This concludes the article on "single acts." In the next chapter I will describe how the acts can be suitably combined. A clever performer can make combinations other than these. In fact, there are an endless variety of combinations that can be made with the acts here described. Space will not allow of a longer or more thorough description.

COMBINATIONS

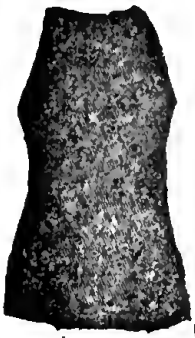
36. A succession of No. 5.
37. A combination of Nos. 2 and 3.
38. A succession of No. 6.
39. A combination of Nos. 2, 3, 4 and 11.
40. A combination of Nos. 11 and 8.
41. A combination of Nos. 10 and 8.

42. A succession of No. 8.
43. A succession of No. 11.
44. A succession of No. 10.
45. A combination of Nos. 7, 2 and 3.
46. A combination of Nos. 7, 2, 3, 4 and 11.
47. A combination of Nos. 7, 2, 3, 4, 11 and 23
48. A succession of No. 21.
49. A combination of Nos. 8 and 33.
50. No. 13 through hoop.
51. A combination of Nos. 7 and 26.
52. A combination of Nos. 7 and 27.
53. A combination of Nos. 23 and 26.
54. A combination of Nos. 24 and 33.
55. A combination of Nos. 7, 27 and 26.
56. A combination of Nos. 7, 27, 26 and 33.
57. A combination of No. 7 and a succession of Nos. 27 and 32.
58. A succession of Nos. 8 and 34, then a succession of No. 27.
59. A combination of No. 7, a succession of Nos. 27 and 28, then a succession of Nos. 27 and 32.

SPALDING KNIT ATHLETIC SHIRTS

STOCK SIZES: 26 to 46 inch chest.

SPECIAL ORDERS—All shirts listed on this page (except Nos. 6E, 6F, 6ES and O) we furnish in any colors on special order, at no extra charge. No more than two colors in any striped garment.



No. 600

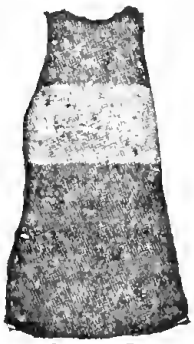
Spalding Sleeveless Shirts

No. 600. Worsted. Carried in stock in Gray, White, Navy Blue, Maroon and Black.

No. 700. Sleeveless. Worsted. Light weight. Carried in stock in Gray, White, Navy Blue, Maroon, and Black.

No. 600S. Worsted, with 6-inch stripe around chest. Carried in stock in following combinations of colors: Navy with White stripe, Black with Orange stripe, Maroon with White stripe, Black with Red stripe, Gray with Cardinal stripe.

No. 700S. Worsted, light weight. Six inch stripe around chest. Color combinations similar to No. 600S. Special order only.



No. 600S

No. 6E. Sanitary cotton. Bleached White, Navy Blue, Black, Maroon or Gray

No. O. Cotton. White only.

No. 6ES. Sanitary cotton. Solid color body, with 6-inch stripe around chest, in same combinations of colors as No. 600S.

No. 600V

No. 600V. Worsted. Sleeveless. V-neck. Supplied on special orders only, any color.

Spalding Quarter Sleeve Shirts

No. 6F. Sanitary cotton. Bleached White Navy Blue, Black, Maroon or Gray.

Necklace on Shirts — Nos. 600 or 600S Shirts on special orders only, with necklace stitched on of different color to body of shirt for an extra charge of [illegible]

SPALDING TIGHTS, TRUNKS AND RUNNING PANTS

STOCK SIZES: 24 to 42 inch waist. STOCK COLORS: Worsted knee and full tights and trunks, except where otherwise specified. Gray, White, Navy Blue, Maroon, and Black. Any other color on special orders, no extra charge.

No. 1A

Spalding Full Length Tights

No. 1A. Best worsted, full fashioned.

No. 605. Good quality worsted.

Spalding Knee Tights

No. 604. Good quality worsted.

Spalding Worsted Trunks

No. 2. Good quality worsted; carried in stock in Navy or Black.

No. 604

No. 2

Spalding Running Pants

STOCK SIZES: 22 to 42 inch waist, cut good and full in size. Specify size and color when ordering.

No. 3. White or Black Sateen. Made with fly front and laced back.

No. 4D. White Drill. Specially recommended for either indoor or Y. M. C. A. work. Fly front, laced back.

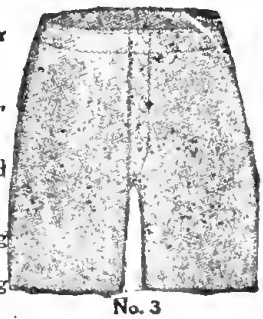
No. 4C. College style. Fly front, wide hips, short legs, no elastic. Made in White, Black or Gray Twill.

No. 4. White, Black or Gray Twill. Fly front, laced back.

No. 5. White, light weight Sateen.

Silk Ribbon Stripes down sides of any of these running pants.

Silk Ribbon Stripe around waist on any of these running pants.



No. 3

No 14B

Spalding Boys' Knee Pants

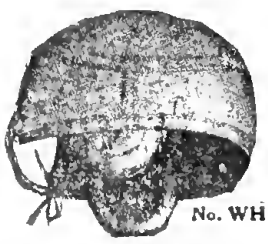
No. 14B. Gray Flannel Knee Pants, stripe down sides.

Spalding Leotards—For Gymnasium Use, Wrestling, etc.

Combining athletic shirts and trunks. Furnished on special order only and in any color. Not carried in stock. Supplied with or without legs and equipped, if required, with bib and dickie. Mention color for dickie when ordering. Prices on application.

Spalding Wrestling Head Harness

No. WH. Always useful; sometimes indispensable.



No. WH

Spalding Wrestling Supporter

No. WS. Mercerized silk elastic, strong and durable.

Spalding "Olympic Championship" Running and Jumping Shoes

No. 2-0

No. 14H

No. 11J

No. 112

No. MH

All of these (Nos. 2-0, 14C, 14H, 14V and 14W, listed below) are fine turned shoes. Finest Kangaroo leather uppers and fine leather soles.

Spalding Short Distance Running Shoes

No. 2-0. Extremely light and glove fitting. Hand made steel spikes firmly riveted on. Worn by all champions for short distances, especially 440 and 880 yards and one mile races.

Spalding Long Distance Running Shoes

No. 14C. For long distance races on athletic tracks. Rubber heels, flexible shanks. Steel spikes in soles. No spikes in heels.

See also Nos. MH and MO listed below.

Spalding Jumping Shoes

No. 14H. Specially stiffened soles. Hand made steel spikes placed as suggested by champion jumpers. Also correct for shot putting, weight and hammer throwing.

No. 14J. Good quality leather; machine made. Satisfactory quality; durable. Steel spikes.

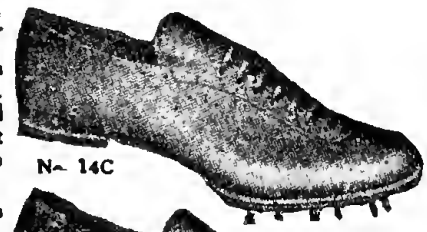
Spalding Pole Vaulting Shoes

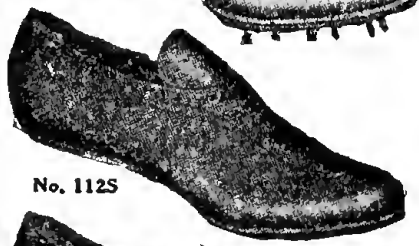
No. 14V. High cut, special last. Same as we supply to the record holders. Hand made steel spikes in soles; one spike in heels. To order only.

On special orders we will supply Pole Vaulting Shoes with one high and one low cut shoe at no extra charge.

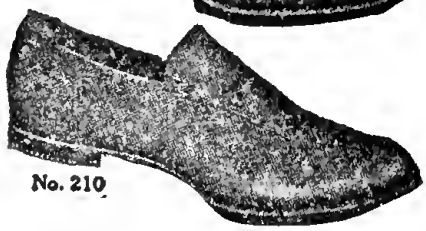
"Olympic Championship" Walking Shoes

No. 14W. For competition and match races. Same as used by all champion walkers.


No. 14C


No. 112S

No. 114


No. 210

Spalding Outdoor Running Shoes

No. 11T. Calfskin, machine made; solid leather tap sole holds spikes firmly in place.

No. 11. Strong leather, machine made.

Spalding Indoor Running Shoes

No. 111. Calfskin, special corrugated rubber soles with spikes.
No. 112S. Good leather uppers and leather soles, short spikes.
No. 112. Good leather, rubber tap soles. No spikes.
No. 114. Leather uppers; rubber tap soles. No spikes.

Spalding Indoor Jumping Shoes

No. 210. Good quality leather uppers; rubber tap soles and rubber heels.
No. 210S. Like No. 210, but with spikes.

Spalding **MARATHON** "Μαραθών" **Long Distance Running Shoes**

No. MH. High cut, but light in weight. Well finished inside so as not to hurt the feet in a long race. Special leather soles, will not wear smooth. Light leather heels. Special quality black leather uppers; welted.

No. MO. Low cut. Otherwise same as No. MH.

Spalding Chamois Pushers

No. 5. Fine Chamois skin, should be used with running, walking, jumping and other athletic shoes.

No. E

Rubber Heels to be Put Inside Jumping Shoes

No. E. Inside rubber heels for jumping, hurdling and polo vaulting shoes.

Cork Athletic Grips

No. 1. Selected cork, shaped.

No. 1

Spalding "Dri-foot" keeps uppers of all running shoes soft and pliable and adds greatly to their wear. Can,

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